10/798773

```
=> d his

     (FILE 'HOME' ENTERED AT 09:20:04 ON 29 MAR 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 09:20:30 ON 29 MAR 2005
L1       1300316 S KINASE?
L2        484232 S HUMAN AND L1
L3       6994149 S CLON? OR EXPRESS? OR RECOMBINANT
L4        241821 S L2 AND L3
L5       6109328 S CARCINOMA OR BRAIN OR PITUITARY OR KIDNEY
L6       2104477 S TRACHEA OR LUNG OR SALIVARY OR PROSTATE
L7        637019 S UMBILICAL (A)VEIN OR AORTA OR ESOPHAGUS OR TONGUE
L8         55574 S L4 AND L5
L9          6103 S L4 AND L7
                 E YU X/AU
L10         2286 S E3
                 E XIE Q/AU
L11          709 S E3
                 E ABUIN A/AU
L12          182 S E3-E5
                 E WALKE D W/AU
L13          127 S E3-E6
L14         3280 S L10 OR L11 OR L12 OR L13
L15          117 S L4 AND L14
L16           43 DUP REM L15 (74 DUPLICATES REMOVED)
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Connecting via Winsock to STN


Welcome to STN International!  Enter x:x

LOGINID:SSSPTA1652MXM

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  FEB 25   CA/CAPLUS - Russian Agency for Patents and Trademarks
                   (ROSPATENT) added to list of core patent offices covered
 NEWS  4  FEB 28   PATDPAFULL - New display fields provide for legal status
                   data from INPADOC
 NEWS  5  FEB 28   BABS - Current-awareness alerts (SDIs) available
 NEWS  6  FEB 28   MEDLINE/LMEDLINE reloaded
 NEWS  7  MAR 02   GBFULL: New full-text patent database on STN
 NEWS  8  MAR 03   REGISTRY/ZREGISTRY - Sequence annotations enhanced
 NEWS  9  MAR 03   MEDLINE file segment of TOXCENTER reloaded
 NEWS  10 MAR 22   KOREAPAT now updated monthly; patent information enhanced
 NEWS  11 MAR 22   Original IDE display format returns to REGISTRY/ZREGISTRY
 NEWS  12 MAR 22   PATDPASPC - New patent database available
 NEWS  13 MAR 22   REGISTRY/ZREGISTRY enhanced with experimental property tags

 NEWS EXPRESS  JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

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FILE 'HOME' ENTERED AT 09:20:04 ON 29 MAR 2005

=> file medline embase biosis biotechds scisearch hcaplus ntis lifesci
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'MEDLINE' ENTERED AT 09:20:30 ON 29 MAR 2005

FILE 'EMBASE' ENTERED AT 09:20:30 ON 29 MAR 2005
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FILE 'BIOSIS' ENTERED AT 09:20:30 ON 29 MAR 2005

FILE 'BIOTECHDS' ENTERED AT 09:20:30 ON 29 MAR 2005

FILE 'SCISEARCH' ENTERED AT 09:20:30 ON 29 MAR 2005

FILE 'HCAPLUS' ENTERED AT 09:20:30 ON 29 MAR 2005

FILE 'NTIS' ENTERED AT 09:20:30 ON 29 MAR 2005

FILE 'LIFESCI' ENTERED AT 09:20:30 ON 29 MAR 2005


```
=> s kinase?
L1     1300316 KINASE?

=> s human and l1
   7 FILES SEARCHED...
L2      484232 HUMAN AND L1

=> s clon? or express? or recombinant
   4 FILES SEARCHED...
L3     6994149 CLON? OR EXPRESS? OR RECOMBINANT

=> s l2 and l3
L4      241821 L2 AND L3

=> s carcinoma or brain or pituitary or kidney
L5     6109328 CARCINOMA OR BRAIN OR PITUITARY OR KIDNEY

=> s trachea or lung or salivary or prostate
L6     2104477 TRACHEA OR LUNG OR SALIVARY OR PROSTATE

=> s umbilical (a)vein or aorta or esophagus or tongue
L7      637019 UMBILICAL (A) VEIN OR AORTA OR ESOPHAGUS OR TONGUE

=> s hypthalamus or ovary or uterus or placenta
COMMAND INTERRUPTED
If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help
Desk by telephone or via SEND in the STNMAIL file.

=> s l4 and l5
L8       55574 L4 AND L5

=> s l4 and l6
COMMAND INTERRUPTED
If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help
Desk by telephone or via SEND in the STNMAIL file.
```

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=> sd his
SD IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> d his

     (FILE 'HOME' ENTERED AT 09:20:04 ON 29 MAR 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 09:20:30 ON 29 MAR 2005
L1       1300316 S KINASE?
L2        484232 S HUMAN AND L1
L3       6994149 S CLON? OR EXPRESS? OR RECOMBINANT
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L5       6109328 S CARCINOMA OR BRAIN OR PITUITARY OR KIDNEY
L6       2104477 S TRACHEA OR LUNG OR SALIVARY OR PROSTATE
L7        637019 S UMBILICAL (A)VEIN OR AORTA OR ESOPHAGUS OR TONGUE
L8         55574 S L4 AND L5

=> s l4 and l7
L9          6103 L4 AND L7

=> s human (3w) l1
COMMAND INTERRUPTED
If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help
Desk by telephone or via SEND in the STNMAIL file.

=> s l7 or l8
COMMAND INTERRUPTED
If this message appears repeatedly, please notify the Help Desk.
Enter "HELP STN" for information on contacting the nearest STN Help
Desk by telephone or via SEND in the STNMAIL file.

=> d his

     (FILE 'HOME' ENTERED AT 09:20:04 ON 29 MAR 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 09:20:30 ON 29 MAR 2005
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L4        241821 S L2 AND L3
L5       6109328 S CARCINOMA OR BRAIN OR PITUITARY OR KIDNEY
L6       2104477 S TRACHEA OR LUNG OR SALIVARY OR PROSTATE
L7        637019 S UMBILICAL (A)VEIN OR AORTA OR ESOPHAGUS OR TONGUE
L8         55574 S L4 AND L5
L9          6103 S L4 AND L7

=> e yu x/au
E1             2     YU WYATT/AU
E2             1     YU WZ/AU
E3          2286 --> YU X/AU
E4             1     YU X */AU
E5            21     YU X A/AU
E6             1     YU X A D/AU
E7           237     YU X B/AU
E8           199     YU X C/AU
E9             7     YU X CHRISTOPHER/AU
E10          144     YU X D/AU
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E11          2     YU X D W/AU
E12          5     YU X E/AU

=> s e3
L10       2286 "YU X"/AU

=> e xie q/au
E1           1     XIE PULING/AU
E2           1     XIE PUTI/AU
E3         709 --> XIE Q/AU
E4           4     XIE Q A/AU
E5          49     XIE Q B/AU
E6          15     XIE Q C/AU
E7           1     XIE Q C K C/AU
E8           1     XIE Q CH/AU
E9          17     XIE Q D/AU
E10         34     XIE Q F/AU
E11         14     XIE Q G/AU
E12         63     XIE Q H/AU

=> s e3
L11        709 "XIE Q"/AU

=> e abuin a/au
E1           1     ABUIKA KUSIAK ALEKSANDRA/AU
E2           1     ABUIKMIEL A/AU
E3          71 --> ABUIN A/AU
E4           2     ABUIN A S/AU
E5         109     ABUIN ALEJANDRO/AU
E6           3     ABUIN B C/AU
E7           4     ABUIN C F/AU
E8           1     ABUIN C FRANCO/AU
E9           3     ABUIN C M F/AU
E10          1     ABUIN C M FRANCO/AU
E11          1     ABUIN CABEZ L M/AU
E12          2     ABUIN CABEZA L M/AU

=> s e3-e5
L12        182 ("ABUIN A"/AU OR "ABUIN A S"/AU OR "ABUIN ALEJANDRO"/AU)

=> e walke d w/au
E1           1     WALKE D/AU
E2           2     WALKE D G/AU
E3          62 --> WALKE D W/AU
E4          62     WALKE D WADE/AU
E5           2     WALKE DANIEL W/AU
E6           1     WALKE DANIEL WADE/AU
E7           1     WALKE E F/AU
E8           4     WALKE E N/AU
E9           1     WALKE E W/AU
E10          3     WALKE ERIK N/AU
E11          1     WALKE FRED/AU
E12          1     WALKE G/AU

=> s e3-e6
L13        127 ("WALKE D W"/AU OR "WALKE D WADE"/AU OR "WALKE DANIEL W"/AU OR
               "WALKE DANIEL WADE"/AU)

=> d his

     (FILE 'HOME' ENTERED AT 09:20:04 ON 29 MAR 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
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```
     LIFESCI' ENTERED AT 09:20:30 ON 29 MAR 2005
L1       1300316 S KINASE?
L2        484232 S HUMAN AND L1
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L4        241821 S L2 AND L3
L5       6109328 S CARCINOMA OR BRAIN OR PITUITARY OR KIDNEY
L6       2104477 S TRACHEA OR LUNG OR SALIVARY OR PROSTATE
L7        637019 S UMBILICAL (A)VEIN OR AORTA OR ESOPHAGUS OR TONGUE
L8         55574 S L4 AND L5
L9          6103 S L4 AND L7
                 E YU X/AU
L10         2286 S E3
                 E XIE Q/AU
L11          709 S E3
                 E ABUIN A/AU
L12          182 S E3-E5
                 E WALKE D W/AU
L13          127 S E3-E6

=> s l10 or l11 or l12 or l13
L14         3280 L10 OR L11 OR L12 OR L13

=> s l4 and l14
L15          117 L4 AND L14

=> dup rem l15
PROCESSING COMPLETED FOR L15
L16           43 DUP REM L15 (74 DUPLICATES REMOVED)

=> d 1-43 ibib ab

L16   ANSWER 1 OF 43  BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
      DUPLICATE 1
ACCESSION NUMBER: 2005-05163  BIOTECHDS
TITLE:            New isolated novel human kinase (NHK)
                  nucleic acid and polypeptide, useful for diagnosing, drug
                  screening, clinical trial monitoring, or treating diseases
                  and disorders;
                       recombinant enzyme protein production and
                     antagonist and agonist for use in for gene therapy
AUTHOR:           HU Y; WILGANOWSKI N L; FRIDDLE C J; WALKE D W
PATENT ASSIGNEE:  LEXICON GENETICS INC
PATENT INFO:      US 6841377 11 Jan 2005
APPLICATION INFO: US 2002-171374 13 Jun 2002
PRIORITY INFO:    US 2002-171374 13 Jun 2002; US 2001-297856 13 Jun 2001
DOCUMENT TYPE:    Patent
LANGUAGE:         English
OTHER SOURCE:     WPI: 2005-072303 [08]
AB    DERWENT ABSTRACT:
      NOVELTY - An isolated nucleic acid molecule (I) comprises a nucleotide
      sequence that encodes a sequence comprising 359 amino acids (SEQ ID NO.
      2), or hybridizes under stringent conditions to the nucleotide sequence
      comprising 1080 bp (SEQ ID NO. 1) or its complement, is new.
           DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1)
      a recombinant expression vector comprising an
      isolated nucleic acid molecule comprising SEQ ID NO. 1; and (2) a host
      cell comprising the vector of (1).
           WIDER DISCLOSURE - Also disclosed as new are: (1) agonists and
      antagonists of NHK; and (2) identifying compounds that modulate NHK
      expression and/or NHK activity.
           BIOTECHNOLOGY - Preferred Expression Vector: In the
      recombinant expression vector, the isolated nucleic
      acid molecule encodes the amino acid sequence of SEQ ID NO. 2. Preferred
```

Host Cell: The host cell is prokaryotic or eukaryotic. Preferably, the cell is a yeast cell, an insect cell, an animal cell, or a mammalian cell.

USE - The nucleic acid and polypeptide sequences are useful for the identification of coding sequence and mapping a unique gene to a particular chromosome. They can also be used for diagnosis, drug screening, clinical trial monitoring, treatment of diseases and disorders, and in cosmetic or nutriceutical applications.

EXAMPLE - No example given. (14 pages)

L16 ANSWER 2 OF 43 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:151237 HCAPLUS
DOCUMENT NUMBER: 142:235493
TITLE: Protein and cDNA sequences of novel **human** protein **kinase** homologs
INVENTOR(S): **Walke, D. Wade**; Hilbun, Erin; Donoho, Gregory; Turner, C. Alexander, Jr.; Hansen, Gwenn; Beltrandelrio, Hector; Van Sligtenhorst, Isaac
PATENT ASSIGNEE(S): Lexicon Genetics Incorporated, USA
SOURCE: U.S., 31 pp., Cont.-in-part of U.S. Ser. No. 854,856.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 6858419	B1	20050222	US 2001-10720		20011113
US 6541252	B1	20030401	US 2001-854856		20010514
PRIORITY APPLN. INFO.:			US 2000-206015P	P	20000519
			US 2001-854856	A2	20010514

AB The present invention relates to the discovery, identification, and characterization of nucleotides that encode novel **human** proteins, and the corresponding amino acid sequences of these proteins. The novel **human** proteins (NHPs) described for the first time herein, collectively referred to herein as ENZ66 (ENZ66 is also referred to as WNK1), share structural similarity with animal **kinases**, including, but not limited to, mitogen activated protein (MAP) **kinases**, serine/threonine protein **kinases**, P21-activated protein **kinases**, and NPK1-related protein **kinases**. As such, the novel polynucleotides encode novel **kinases** having homologues and orthologs across a range of phyla and species.
REFERENCE COUNT: 115 THERE ARE 115 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 2
ACCESSION NUMBER: 2004-23078 BIOTECHDS
TITLE: New isolated nucleic acid molecule encoding a protein **kinase**, and the encoded enzyme, useful e.g. in diagnostics and in drug screening;
vector-mediated protein-**kinase** gene transfer and **expression** in host cell for **recombinant** protein production and drug screening
AUTHOR: **WALKE D W**; SCOVILLE J; FRIDDLE C J
PATENT ASSIGNEE: WALKE D W; SCOVILLE J; FRIDDLE C J
PATENT INFO: US 2004175749 9 Sep 2004
APPLICATION INFO: US 2004-803278 18 Mar 2004
PRIORITY INFO: US 2004-803278 18 Mar 2004; US 2001-293248 24 May 2001
DOCUMENT TYPE: Patent
LANGUAGE: English

OTHER SOURCE: WPI: 2004-652024 [63]
AB DERWENT ABSTRACT:
NOVELTY - An isolated nucleic acid molecule comprising a sequence of 1449 bp (SEQ ID NO: 3) fully defined in the specification, a sequence that encodes an amino acid sequence comprising 482 amino acids (SEQ ID NO: 4) also given in the specification, or a sequence that encodes SEQ ID NO: 4 and hybridizes under stringent conditions to the complement of SEQ ID NO: 3, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a substantially isolated protein having the **kinase** activity of the protein in SEQ ID NO: 4 which is encoded by a nucleotide sequence that hybridizes to SEQ ID NO: 3 under highly stringent conditions.

WIDER DISCLOSURE - Disclosed are processes for identifying compounds that modulate **expression** and/or activity of the protein above.

USE - The polynucleotide or the encoded protein is useful for identifying compounds that modulate **expression** and/or activity of the protein, such modulator can be used in the diagnosis, drug screening, clinical trial monitoring, the treatment of diseases and disorders, and cosmetic or nutriceutical applications. The polynucleotide is useful as DNA markers for restriction fragment length polymorphism analysis, and in forensic biology. The sequences are useful for mapping and identifying the coding regions of the **human** genome, and for defining exon splice junctions. The protein is useful for generating antibodies, as reagents in diagnostic assays, for identifying other cellular gene products related to a **human** protein above, and as reagents in assays for screening for compounds that can be used as pharmaceutical reagents useful in the therapeutic treatment of mental, biological or medical disorders and diseases.

EXAMPLE - None given. (17 pages)

L16 ANSWER 4 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 3
ACCESSION NUMBER: 2004-24720 BIOTECHDS
TITLE: New nucleic acids encoding **human kinase** proteins, useful for identifying protein coding sequences and mapping a unique gene to a particular chromosome, or as additional DNA markers for restriction fragment length polymorphism analysis;
recombinant protein production via plasmid **expression** in host cell for use in chromosome mapping and forensics
AUTHOR: **WALKE D W**; SCOVILLE J; FRIDDLE C J
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: US 6797510 28 Sep 2004
APPLICATION INFO: US 2002-196927 20 May 2002
PRIORITY INFO: US 2002-196927 20 May 2002; US 2001-293248 24 May 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2004-687770 [67]
AB DERWENT ABSTRACT:
NOVELTY - A new isolated nucleic acid molecule comprises a sequence of 1449 bp (SEQ ID NO: 3) given in the specification, or encodes a 482-amino acid sequence (SEQ ID NO: 4) also given in the specification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) a **recombinant expression** vector comprising a nucleic acid encoding SEQ ID NO: 4; and (2) a host cell comprising the **recombinant expression** vector.

WIDER DISCLOSURE - Also disclosed are the following: (1) agonists and antagonists of the novel **human** proteins (NHPs); (2) antibodies and nucleotide sequences that can be used to inhibit the **expression** of the NHPs; (3) transgenic animals that **express** NHP sequence; and (4) identifying compounds that modulate NHP **expression** and/or activity.

BIOTECHNOLOGY - Preferred Nucleic Acid: The nucleic acid comprised in the **expression** vector comprises SEQ ID NO: 3.

USE - The NHP sequences are useful for identifying protein coding sequences and mapping a unique gene to a particular chromosome, as additional DNA markers for restriction fragment length polymorphism analysis, or in forensic biology, particularly given the presence of nucleotide polymorphisms within the described sequences. (17 pages)

L16 ANSWER 5 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-20835 BIOTECHDS
TITLE: New lentiviral vector comprising a cDNA encoding Hes1 polypeptide, useful treating cancer, disease caused by a pathogen, or neurological disorders, e.g. neurodegenerative disease, Huntington's disease, Guillain-Barre syndrome, or stroke;
a **recombinant** lenti virus vector with a Hes-1 coding region and a reporter gene useful for disease gene therapy
AUTHOR: CIVIN C I; **YU X**
PATENT ASSIGNEE: UNIV JOHNS HOPKINS SCHOOL MEDICINE
PATENT INFO: WO 2004072264 26 Aug 2004
APPLICATION INFO: WO 2004-US4085 12 Feb 2004
PRIORITY INFO: US 2003-498739 28 Aug 2003; US 2003-446939 12 Feb 2003
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2004-625865 [60]
AB DERWENT ABSTRACT:
NOVELTY - A lentiviral vector comprising a cDNA encoding Hes1 polypeptide, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) a modified CD34+ hematopoietic stem cell (HSC) comprising the vector; (2) a method for promoting monocyte-macrophage cell, dendritic cell, or neural cell differentiation; (3) a composition comprising a monocyte-macrophage, dendritic cell, or neural cell produced by the method of (2), siRNA comprising the sequence gaaagatagc tcgcggcat SEQ ID NO: 21), antisense RNA comprising a sequence of 45 bp (SEQ ID NO: 24), and a physiological carrier; (4) a method of promoting pathogen immunity or cancer immunity; (5) an assay for evaluating whether a compound is an antagonist or an agonist of Hes1; and (6) a composition comprising siRNA comprising the sequence gaaagatagc tcgcggcat SEQ ID NO: 21), or an antisense RNA comprising a sequence of 45 bp (SEQ ID NO: 24).

BIOTECHNOLOGY - Preferred Vector: The vector further comprises a cDNA insertion site. The insertion site is occupied by a cDNA encoding a reporter gene, e.g. green or red fluorescent protein, chloramphenicol acetyltransferase or luciferase. The cDNA encoding Hes1 polypeptide and the cDNA encoding the reporter gene are transcribed from separate promoters. Preferred Modified CD34+ HSC: The cell is isolated from bone marrow, umbilical cord blood, mobilized peripheral blood or nonmobilized peripheral blood. Preferred Composition: The carrier is an isotonic solution, biocompatible matrix or gel. Preferred Method: Promoting monocyte-macrophage cell, dendritic cell, or neural cell differentiation comprises modifying a CD34+ HSC to decrease or increase **expression** of a Hes1 polypeptide and culturing the modified CD34+ HSC in monocyte-macrophage, dendritic cell, or neural cell differentiation promoting conditions until a monocyte-macrophage, dendritic cell, or neural cell phenotype emerges. The monocyte-macrophage differentiation promoting conditions comprise incubating the HSCs with Kit ligand, thrombopoietin (TPO), Frms-like tyrosine **kinase**-3 (FLT3), granulocyte-monocyte colony stimulating factor (GM-CSF), interleukin-2 (IL-2) and erythropoietin (Epo). The dendritic cell differentiation promoting conditions comprise incubating the HSCs with TPO, FLT3, Kit ligand, GM-CSF, and IL-4. The neural cell differentiation promoting conditions comprise incubating HSCs with nerve growth factor or

brain-derived growth factor. The neural cell differentiation promoting conditions comprise incubating HSCs with basic fibroblast growth factor, platelet-derived growth factor or epidermal growth factor. The CD34+ HSC stem cell is a mammalian CD34+ HSC or a **human** CD34+ HSC. The macrophage-monocyte phenotype comprises CD14, CD45, CD13 or CD33 cell surface markers. The dendritic cell phenotype comprises presence of HLA-DR and CD1a cell surface markers and absence of CD14 cell surface marker. The neural cell phenotype comprises presence of neuron-specific enolase. The neural cell phenotype comprises presence of oligodendrocyte marker 4 or glial fibrillary marker 4. The Hes1 is decreased by contacting a CD34+ HSC with Hes-1 siRNA of SEQ ID NO: 21 or with a Hes-1 antisense RNA of SEQ ID NO: 24. Promoting pathogen immunity or cancer immunity comprises administering the composition of (3) to a subject. Preferred Assay: An assay for evaluating whether a compound is an antagonist or an agonist of Hes1 comprises culturing cells containing the lentiviral vector and assaying for evidence of transcription of the reporter gene in the cells. The cells are mammalian cells. The assay comprises assaying for mRNA transcribed from the reporter gene. The assay comprises assaying for induction of transcription of the reporter gene in the cells. The reporter gene is contained in a reporter plasmid, where the non-endogenous DNA which **expresses** the Hes1 protein(s) or its functional modified forms is contained in an **expression** plasmid, where the reporter gene and **expression** plasmids also contain a selectable marker. The reporter gene is operatively linked tom a Hes1 response element, i.e. PU.1 promoter. The cells are HSCs or neural stem cells.

ACTIVITY - Cytostatic; Virucide; Antimicrobial; Antiparasitic; Antibacterial; Antihelminthic; Neuroprotective; Antiparkinsonian; Anticonvulsant; Nootropic; Antiinflammatory; CNS-Gen; Cerebroprotective; Vasotropic. No biological data given.

MECHANISM OF ACTION - Gene Therapy.

USE - The vector, modified HSC, composition, and method are useful treating malignancies, inborn errors of metabolism, hemoglobinopathies, immunodeficiencies, cancer, disease caused by a pathogen, e.g. virus, parasites, bacteria, or helminths, neurological disorders like neurodegenerative disease, neurotrauma, Parkinson's disease, Huntington's disease, multiple sclerosis, Alzheimer's disease, amylotrophic lateral sclerosis, Guillain-Barre syndrome, or stroke. (73 pages)

L16 ANSWER 6 OF 43 EMBASE
on STN DUPLICATE 4

ACCESSION NUMBER: 2004467298 EMBASE
TITLE: RNA interference reveals that ligand-independent met activity is required for tumor cell signaling and survival.
AUTHOR: Shinomiya N.; Chong F.G.; **Xie Q.**; Gustafson M.; Waters D.J.; Zhang Y.-W.; Vande Woude G.F.
CORPORATE SOURCE: G.F. Vande Woude, Laboratory of Molecular Oncology, Van Andel Research Institute, Grand Rapids, MI 49503, United States. george.vandewoude@vai.org
SOURCE: Cancer Research, (1 Nov 2004) 64/21 (7962-7970).
Refs: 50
ISSN: 0008-5472 CODEN: CNREA8
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
016 Cancer
030 Pharmacology
037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Hepatocyte growth factor/scatter factor-Met signaling has been implicated in tumor growth, invasion, and metastasis. Suppression of this signaling

pathway by targeting the Met protein tyrosine **kinase** may be an ideal strategy for suppressing malignant tumor growth. Using RNA interference technology and adenovirus vectors carrying small-interfering RNA constructs (Ad Met small-interfering RNA) directed against mouse, canine, and **human** Met, we can knock down c-met mRNA. We show a dramatic dependence on Met in both ligand-dependent and ligand-independent mouse, canine, and **human** tumor cell lines. Mouse mammary tumor (DA3) cells and Met-transformed NIH3T3 (M114) cells, as well as both **human** and canine prostate cancer (PC-3 and TR6LM, **human** sarcoma (SK-LMS-1), glioblastoma (DBTRG), and gastric cancer (MKN45) cells, all display a dramatic reduction of Met **expression** after infection with Ad Met small-interfering RNA. In these cells, we observe suppression of tumor cell growth and viability in vitro as well as inhibition of hepatocyte growth factor/scatter factor-mediated scattering and invasion in vitro, whether Met activation was ligand dependent or not. Importantly, Ad Met small-interfering RNA led to apoptotic cell death in many of the tumor cell lines, especially DA3 and MKN45, but did not adversely affect MDCK canine kidney cells. Met small-interfering RNA also abrogated downstream Met signaling to molecules such as Akt and p44/42 mitogen-activated protein **kinase**. We further show that intratumoral infection with c-met small-interfering RNA adenovirus results in a substantial reduction in tumor growth. Thus, Met small-interfering RNA adenoviruses are reliable tools for studying Met function and raise the possibility of their application for cancer therapy.

L16 ANSWER 7 OF 43 EMBASE
on STN DUPLICATE 5

ACCESSION NUMBER: 2004510339 EMBASE
TITLE: Insulin-like growth factor-I regulation of hepatic scavenger receptor class BI.
AUTHOR: Cao W.M.; Murao K.; Imachi H.; **Yu X.**; Dobashi H.; Yoshida K.; Muraoka T.; Kotsuna N.; Nagao S.; Wong N.C.W.; Ishida T.
CORPORATE SOURCE: Dr. K. Murao, First Dept. of Internal Medicine, Faculty of Medicine, Kagawa University, 1750-1, Miki-cho, Kita-gun, Kagawa 761-0793, Japan. mkoji@kms.ac.jp
SOURCE: Endocrinology, (2004) 145/12 (5540-5547).
Refs: 49
ISSN: 0013-7227 CODEN: ENDOAO
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English

AB High-density lipoprotein mediates a normal physiological process called reverse cholesterol transport. This process enables the transfer of cholesterol from peripheral tissues to the liver for further metabolism and eventual secretion in the form of bile. The scavenger receptor of the B class (SR-BI), **human** homolog of SR-BI, and CD36 and LIMPII analogous-1 (CLA-1) are different names for the same receptor that facilitates hepatocellular uptake of cholesterol from high-density lipoprotein. The pivotal role of this receptor in enterohepatic circulation of cholesterol and bile salts underlies our interest to study the regulation of hepatic SR-BI gene in response to the actions of IGF-I. The results of our studies showed that endogenous **expression** of SA-BI/CLA-1 was suppressed by exposure to GH or IGF-I in cultured HepG2 cells. This observation extended to a whole animal model of rats continuously infused with IGF-I. IGF-I decreased transcriptional activity of the SR-BI promoter. However, the inhibitory effect of IGF-I on SR-BI/CLA-1 promoter activity was abrogated by wortmannin, a specific inhibitor of phosphoinositide 3-**kinase** (PI3-K). Exposure of HepG2 cells to IGF-I elicited a rapid phosphorylation of Akt. We also

demonstrated that the constitutively active form of both p110, a subunit of PI3-K, and Akt inhibited activity of the **human** SR-BI/CLA-1 promoter. Furthermore, the dominant-negative mutant of Akt abolished the ability of IGF-I to suppress activity of the SR-BI/CLA-1 promoter. In conclusion, PI3-K/Akt pathways participate in IGF-I-suppression of SR-BI/CLA-1 **expression**, which suggests that the activation of Akt plays an important role in cholesterol metabolism in liver.

L16 ANSWER 8 OF 43 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2004307695 EMBASE
TITLE: Transformation potency of ErbB heterodimer signaling is determined by B-Raf **kinase**.
AUTHOR: Hatakeyama M.; Yumoto N.; **Yu X.**; Shirouzu M.; Yokoyama S.; Konagaya A.
CORPORATE SOURCE: M. Hatakeyama, Bioinformatics Group, RIKEN Genomic Sciences Center, 1-7-22 Suehiro-cho, Yokohama, Kanagawa 230-0045, Japan. marikoh@gsc.riken.jp
SOURCE: Oncogene, (24 Jun 2004) 23/29 (5023-5031).
Refs: 45
ISSN: 0950-9232 CODEN: ONCNES
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Cellular transformation occurs only in cells that **express** both ErbB1 and ErbB4 receptors, but not in cells **expressing** only one or the other of these receptors. However, when both receptors are coexpressed and ligand-stimulated, they interact with virtually the same adaptor/effector proteins as when **expressed** singly. To reveal the underlying regulatory mechanism of the **kinase**/phosphatase network in ErbB homo- and heterodimer receptor signaling, extracellular signal-regulated **kinase** (ERK) and Akt activities were evaluated in the presence of several enzyme inhibitors in ligand-induced cells **expressing** ErbB1 (E1), ErbB4 (E4), and ErbB1/ErbB4 (E1/4) receptor. The PP2A inhibitor okadaic acid showed receptor-specific inhibitory profiles for ERK and Akt activities. Moreover, B-Raf isolated only from E1/4 cells could induce in vitro phosphorylation for MEK; this B-Raf **kinase** activity was abolished by pretreatment of the cells with okadaic acid. Our study further showed that the E1/4 cell-specific B-Raf activity was stimulated by PLCγ and subsequent Rap1 activation. The present study suggests that B-Raf **kinase**, which was specifically activated in the cells coexpressing ErbB1 and ErbB4 receptors, elevates total ERK activity within the cell and, therefore, can induce cellular transformation.

L16 ANSWER 9 OF 43 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:292880 HCAPLUS
DOCUMENT NUMBER: 141:361182
TITLE: Wnk1 **kinase** deficiency lowers blood pressure in mice: A gene-trap screen to identify potential targets for therapeutic intervention. [Erratum to document cited in CA140:106021]
AUTHOR(S): Zambrowicz, Brian P.; **Abuin, Alejandro**; Ramirez-Solis, Ramiro; Richter, Lizabeth J.; Piggott, James; BeltrandelRio, Hector; Buxton, Eric C.; Edwards, Joel; Finch, Rick A.; Friddle, Carl J.; Gupta, Anupma; Hansen, Gwenn; Hu, Yi; Huang, Wenhu; Jaing, Crystal; Key, Billie Wayne, Jr.; Kipp, Peter; Kohlhauff, Buckley; Ma, Zhi-Qing; Markesich, Diane; Payne, Robert; Potter, David G.; Qian, Ny; Shaw, Joseph; Schrick, Jeff; Shi, Zheng-Zheng; Sparks, Mary

Jean; Van Sligtenhorst, Isaac; Vogel, Peter; Walke, Wade; Xu, Nianhua; Zhu, Qichao; Person, Christophe; Sands, Arthur T.
CORPORATE SOURCE: Lexicon Genetics, The Woodlands, TX, 77381, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2004), 101(12), 4332
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The software used to generate the original graph depicting historical progression of estimated genome coverage by Omnibank failed to consistently select the earliest Omnibank sequence tag (OST) match to the sentinel gene list. Therefore, the rate of genome coverage is significantly greater in the initial phases of gene trap **clone** collection than that originally presented in the graph for Figure 2B. The corrected graph accurately illustrates an initial high rate of growth in genome coverage that then slows more significantly in the later stages of **clone** collection. The conclusions regarding total genomic coverage achieved by this methodol. as well as other aspects of the work are unchanged. The corrected figure and its legend are given.

L16 ANSWER 10 OF 43 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 6

ACCESSION NUMBER: 2004088683 EMBASE
TITLE: A Mutant High-Density Lipoprotein Receptor Inhibits Proliferation of **Human** Breast Cancer Cells.
AUTHOR: Cao W.M.; Murao K.; Imachi H.; **Yu X.**; Abe H.; Yamauchi A.; Niimi M.; Miyauchi A.; Wong N.C.W.; Ishida T.
CORPORATE SOURCE: K. Murao, First Dept. of Internal Medicine, Kagawa Medical University, 1750-1 Miki-cho, Kita-gun, Kagawa, Japan. mkoji@kms.ac.jp
SOURCE: Cancer Research, (15 Feb 2004) 64/4 (1515-1521).
Refs: 33
ISSN: 0008-5472 CODEN: CNREA8
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
LANGUAGE: English
SUMMARY LANGUAGE: English

AB High-density lipoprotein (HDL) stimulates the growth of many types of cells, including those of breast cancer. High levels of HDL are associated with an increased risk of breast cancer development. A scavenger receptor of the B class (SR-BI)/**human** homolog of SR-BI, CD36, and LIMPII analogous-1 (CLA-1) facilitates the cellular uptake of cholesterol from HDL and thus augments cell growth. Furthermore, HDL is also believed to have antiapoptotic effects on various cell types, and this feature adds to its ability to promote cell growth. These collaborative roles of HDL and CLA-1 prompted us to assess the function of these components on **human** breast cancer cells. In this study, we created a mutant CLA-1 (mCLA) that lacked the COOH-terminal tail to determine its potential role in breast cancer cell growth. **Expression** of mCLA inhibited the proliferation of breast cancer cell line MCF-7. This inhibitory action of mCLA required the transcriptional factor activator protein-1 (AP-1), and the mutant receptor also affected the antiapoptotic features of HDL. The effect of HDL on AP-1 activation and [(3)H]thymidine incorporation was abrogated by wortmannin, a specific inhibitor of phosphoinositide 3-**kinase**. Furthermore, the dominant negative mutant of Akt abolished the ability of HDL to activate AP-1. These findings raise the possibility that the inhibitors of the effects of HDL may be of therapeutic value for breast cancer.

L16 ANSWER 11 OF 43 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on

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ACCESSION NUMBER: 2005:23438 BIOSIS
DOCUMENT NUMBER: PREV200500022740
TITLE: Development of glucose intolerance in male transgenic mice overexpressing **human** glycogen synthase **kinase**-3beta on a muscle-specific promoter.
AUTHOR(S): Pearce, Nigel J. [Reprint Author]; Arch, Jonathan R. S.; Clapham, John C.; Coghlan, Matthew P.; Corcoran, Stacey L.; Lister, Carolyn A.; Llano, Andrea; Moore, Gary B.; Murphy, Gregory J.; Smith, Stephen A.; Taylor, Colleen M.; Yates, John W.; Morrison, Alastair D.; Harper, Alexander J.; Roxbee-Cox, Lynne; **Abuin, Alejandro**; Wargent, Ed; Holder, Julie C.
CORPORATE SOURCE: Dept Vasc Biol, GlaxoSmithKline, New Fontiers Sci Pk-S,3rd Ave, Harlow, Essex, CM19 5AW, UK
SOURCE: Metabolism Clinical and Experimental, (October 2004) Vol. 53, No. 10, pp. 1322-1330. print.
ISSN: 0026-0495 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 29 Dec 2004
Last Updated on STN: 29 Dec 2004

AB Glycogen synthase **kinase**-3 (GSK-3) protein levels and activity are elevated in skeletal muscle in type 2 diabetes, and inversely correlated with both glycogen synthase activity and insulin-stimulated glucose disposal. To explore this relationship, we have produced transgenic mice that overexpress **human** GSK-3beta in skeletal muscle. GSK-3beta transgenic mice were heavier, by up to 20% ($P < .001$), than their age-matched controls due to an increase in fat mass. The male GSK-3beta transgenic mice had significantly raised plasma insulin levels and by 24 weeks of age became glucose-intolerant as determined by a 50% increase in the area under their oral glucose tolerance curve ($P < .001$). They were also hyperlipidemic with significantly raised serum cholesterol (+90%), nonesterified fatty acids (NEFAs) (+55%), and triglycerides (+00%). At 29 weeks of age, GSK-3beta protein levels were 5-fold higher, and glycogen synthase activation (-27%), glycogen levels (-58%) and insulin receptor substrate-1 (IRS-1) protein levels (-67%) were significantly reduced in skeletal muscle. Hepatic glycogen levels were significantly increased 4-fold. Female GSK-3beta transgenic mice did not develop glucose intolerance despite 7-fold overexpression of GSK-3beta protein and a 20% reduction in glycogen synthase activation in skeletal muscle. However, plasma NEFAs and muscle IRS-1 protein levels were unchanged in females. We conclude that overexpression of **human** GSK-3beta in skeletal muscle of male mice resulted in impaired glucose tolerance despite raised insulin levels, consistent with the possibility that elevated levels of GSK-3 in type 2 diabetes are partly responsible for insulin resistance.

L16 ANSWER 12 OF 43 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2004247144 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15024403
TITLE: Improved glucose homeostasis in mice overexpressing **human** UCP3: a role for AMP-**kinase**?.
AUTHOR: Schrauwen P; Hardie D G; Roorda B; Clapham J C; **Abuin A**; Thomason-Hughes M; Green K; Frederik P M; Hesselink M K C
CORPORATE SOURCE: Department of Human Biology, Maastricht University, The Netherlands.. p.schrauwen@hb.unimaas.nl
SOURCE: International journal of obesity and related metabolic disorders : journal of the International Association for the Study of Obesity, (2004 Jun) 28 (6) 824-8.
Journal code: 9313169. ISSN: 0307-0565.

PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200409
ENTRY DATE: Entered STN: 20040518
Last Updated on STN: 20040928
Entered Medline: 20040927

AB OBJECTIVE: An unexplained phenotype of mice overexpressing **human** UCP3 is their improved glucose homeostasis. Since overexpression of UCP3 might affect the energy charge of the cell, we investigated whether these mice have an increased AMP-activated protein **kinase** (AMPK) activity. METHODS: Mitochondrial localisation of UCP3 was determined by immunoelectronmicroscopy and AMPK activity was measured in medial gastrocnemius of control mice and mice overexpressing **human** UCP3. RESULTS: Mice overexpressing **human** UCP3 had 5.8 fold higher levels of UCP3 protein, for which mitochondrial localisation was confirmed by immunoelectronmicroscopy. The ATP/AMP ratio was significantly lower in mice over-**expressing** UCP3 compared to the wild-type (10.9+/-1.6 vs 20.4+/-1.9 AU, P=0.03). Over-**expression** of UCP3 resulted in increased AMPK alpha1 activity (1.23+/-0.05 vs 1.00+/-0.06 normalized values, P=0.004) and a tendency towards increased AMPK alpha2 activity (1.18+/-0.08 vs 1.00+/-0.10 normalized values, P=0.08). CONCLUSION: Increased AMPK activity provides a plausible explanation for the improved glucose tolerance characteristic for these mice.

L16 ANSWER 13 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-04631 BIOTECHDS
TITLE: New **human kinase** nucleic acid molecules, useful for diagnosis, drug screening, clinical trial monitoring and treating diseases or disorders associated with biological disorders or imbalances; involving vector-mediated gene transfer and **expression** in host cell for use in gene therapy
AUTHOR: HU Y; NEPOMNICHY B; GERHARDT B; **WALKE D W**; FRIDDLE C J
PATENT ASSIGNEE: HU Y; NEPOMNICHY B; GERHARDT B; WALKE D W; FRIDDLE C J
PATENT INFO: US 2003175949 18 Sep 2003
APPLICATION INFO: US 2003-430797 6 May 2003
PRIORITY INFO: US 2003-430797 6 May 2003; US 2000-243893 27 Oct 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-898545 [82]

AB DERWENT ABSTRACT:
NOVELTY - An isolated nucleic acid molecule comprising a sequence of 2829 (S1) or 927 (S2) bp, fully defined in the specification, is new.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for an isolated nucleic acid **expression** vector comprising a promoter element operatively positioned to **express** a transcript encoding a sequence of 942 or 308 amino acids, fully defined in the specification.
BIOTECHNOLOGY - Preferred Molecule: The nucleic acid molecule encodes a sequence of 942 or 308 amino acids, fully defined in the specification. It hybridizes under stringent conditions to S1 or its complement.
ACTIVITY - None given.
MECHANISM OF ACTION - Gene therapy.
USE - The nucleic acid molecules are useful for diagnosis, drug screening, clinical trial monitoring and treating diseases or disorders associated with biological disorders or imbalances. (17 pages)

L16 ANSWER 14 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-23467 BIOTECHDS

TITLE: New nucleic acid molecules encoding novel **human** proteins (NHPs), e.g. sharing sequence similarity with animal **kinases** or receptor tyrosine **kinases**, useful for diagnosis, drug screening, and treatment of diseases and disorders; virus vector-mediated gene transfer and **expression** in bacterium, yeast, fungus, insect, mammal cell for **recombinant** protein-tyrosine-**kinase** receptor

AUTHOR: HU Y; NEPOMNICHY B; GERHARDT B; **WALKE D W**; FRIDDLE C J

PATENT ASSIGNEE: LEXICON GENETICS INC

PATENT INFO: US 6586230 1 Jul 2003

APPLICATION INFO: US 2001-4542 23 Oct 2001

PRIORITY INFO: US 2001-4542 23 Oct 2001; US 2000-243893 27 Oct 2000

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 2003-634547 [60]

AB DERWENT ABSTRACT:

NOVELTY - An isolated **human** nucleic acid molecule, comprising a sequence of 2829 or 927 base pairs (bp), or encodes a sequence of 942 amino acids, fully defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following: (1) an isolated nucleic acid **expression** vector comprising the nucleic acid molecule; and (2) a host cell comprising the **expression** vector.

WIDER DISCLOSURE - Also disclosed as new are: (1) encoded proteins, fusion proteins, polypeptides and peptides; (2) antibodies to the encoded proteins; (3) genetically engineered animals that either lack or over **express** the disclosed genes; (4) antagonist or agonist of proteins, including small molecules, large molecules; (5) mutant NHPs and other compounds that modulate the **expression** or activity of the proteins; and (6) transgenic animals that **express** a NHP sequence or knock-outs that do not **express** a functional NHP.

BIOTECHNOLOGY - Preparation: NHP gene homologs can be isolated from nucleic acid from an organism of interest by performing polymerase chain reaction (PCR) using two degenerate or wobble oligonucleotide primer pools designed on the basis of amino acid sequences. The PCR product can be subcloned and sequenced to ensure that the amplified sequences represent the sequence of the desired NHP gene. The PCR fragment can then be used to isolate a full length cDNA **clone** by a variety of methods. For example, the amplified fragment can be labeled and used to screen a cDNA library, such as a bacteriophage cDNA library. A cDNA encoding a mutant NHP sequence can be isolated, for example, by using PCR. In this case, the first cDNA strand may be synthesized by hybridizing an oligo-dT oligonucleotide to mRNA isolated from tissue known or suspected to be **expressed** in an individual putatively carrying a mutant NHP allele, and by extending the new strand with reverse transcriptase. Preferred Host: Escherichia coli, bacillus subtilis, Saccharomyces, Pichia, insect cell, Chinese hamster ovary, baby hamster kidney, 293 cell, 3T3 cell. Preferred Vector: Baculo virus, cauliflower mosaic virus, tobacco mosaic virus.

ACTIVITY - Neuroprotective; Nootropic.

MECHANISM OF ACTION - Gene therapy; **Human** protein (Anta)gonist; Antisense therapy. No biological data given.

USE - The nucleic acid molecules are useful for diagnosis, drug screening, clinical trial monitoring, the treatment of biological disorders, imbalances disorder and mental disorders, and cosmetic and nutriceutical applications. The nucleic acid molecules are useful as hybridization probe, assessing gene **expression** pattern, polymorphisms identification, drug screening, and pharmacogenomics. NHP oligonucleotides can be used for molecular mutagenesis or evolution of protein, generation of antibodies as reagent in diagnostic assay,

identification of other cellular gene product related to a NHP as reagents in assays for screening for compound, chromosome mapping and gene therapy.
EXAMPLE - No example given.(17 pages)

L16 ANSWER 15 OF 43 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:254176 HCAPLUS
DOCUMENT NUMBER: 138:283310
TITLE: Protein and cDNA sequences of a **human** protein **kinase**
INVENTOR(S): **Walke, D. Wade**; Hilbun, Erin; Donoho, Gregory; Turner, C. Alexander, Jr.
PATENT ASSIGNEE(S): Lexicon Genetics Incorporated, USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 6541252	B1	20030401	US 2001-854856		20010514
US 6858419	B1	20050222	US 2001-10720		20011113
PRIORITY APPLN. INFO.:			US 2000-206015P	P	20000519
			US 2001-854856	A2	20010514

AB The invention provides protein and cDNA sequences of a **human** protein that has structural similarity with animal protein **kinases**. The invention further relates to the use of protein **kinase** in therapeutic, diagnostic, and pharmacogenomic applications.
REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 16 OF 43 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 2003571452 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14610273
TITLE: Wnk1 **kinase** deficiency lowers blood pressure in mice: a gene-trap screen to identify potential targets for therapeutic intervention.
AUTHOR: Zambrowicz Brian P; **Abuin Alejandro**; Ramirez-Solis Ramiro; Richter Lizabeth J; Piggott James; BeltrandelRio Hector; Buxton Eric C; Edwards Joel; Finch Rick A; Friddle Carl J; Gupta Anupma; Hansen Gwenn; Hu Yi; Huang Wenhu; Jaing Crystal; Key Billie Wayne Jr; Kipp Peter; Kohlhauff Buckley; Ma Zhi-Qing; Markesich Diane; Payne Robert; Potter David G; Qian Ny; Shaw Joseph; Schrick Jeff; Shi Zheng-Zheng; Sparks Mary Jean; Van Sligtenhorst Isaac; Vogel Peter; Walke Wade; Xu Nianhua; Zhu Qichao; Person Christophe; Sands Arthur T
CORPORATE SOURCE: Lexicon Genetics, 8800 Technology Forest Place, The Woodlands, TX 77381, USA.. brian@lexgen.com
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (2003 Nov 25) 100 (24) 14109-14. Electronic Publication: 2003-11-10.
Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-CG472819; GENBANK-CG472820; GENBANK-CG472821; GENBANK-CG472822; GENBANK-CG472823; GENBANK-CG472824; GENBANK-CG472825; GENBANK-CG472826; GENBANK-CG472827; GENBANK-CG472828; GENBANK-CG472829; GENBANK-CG472830;

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ENTRY MONTH: 200402

ENTRY DATE: Entered STN: 20031216
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AB The availability of both the mouse and **human** genome sequences allows for the systematic discovery of **human** gene function through the use of the mouse as a model system. To accelerate the genetic determination of gene function, we have developed a sequence-tagged gene-trap library of >270,000 mouse embryonic stem cell **clones** representing mutations in approximately 60% of mammalian genes. Through the generation and phenotypic analysis of knockout mice from this resource, we are undertaking a functional screen to identify genes regulating physiological parameters such as blood pressure. As part of this screen, mice deficient for the Wnk1 **kinase** gene were generated and analyzed. Genetic studies in **humans** have shown that large intronic deletions in WNK1 lead to its overexpression and are responsible for pseudohypoaldosteronism type II, an autosomal dominant disorder characterized by hypertension, increased renal salt reabsorption, and impaired K+ and H+ excretion. Consistent with the **human** genetic studies, Wnk1 heterozygous mice displayed a significant decrease in blood pressure. Mice homozygous for the Wnk1 mutation died during embryonic development before day 13 of gestation. These results demonstrate that Wnk1 is a regulator of blood pressure critical for development and illustrate the utility of a functional screen driven by a sequence-based mutagenesis approach.

L16 ANSWER 17 OF 43 EMBASE
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ACCESSION NUMBER: 2003263058 EMBASE

TITLE: Lentiviral vectors with two independent internal promoters transfer high-level **expression** of multiple transgenes to **human** hematopoietic stem-progenitor cells.

AUTHOR: **Yu X.**; Zhan X.; D'Costa J.; Tanavde V.M.; Ye Z.; Peng T.; Malehorn M.T.; Yang X.; Civin C.I.; Cheng L.

CORPORATE SOURCE: L. Cheng, Sidney Kimmel Comp. Cancer Center, Department of Oncology, Johns Hopkins Univ. Sch. of Medicine, 1650 Orleans Street, Baltimore, MD 21231, United States. lcheng2@jhmi.edu

SOURCE: Molecular Therapy, (1 Jun 2003) 7/6 (827-838).
Refs: 40
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COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 004 Microbiology
022 Human Genetics

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Lentiviral vectors (LVs) offer several advantages over traditional oncoretroviral vectors. LVs efficiently transduce slowly dividing cells, including hematopoietic stem-progenitor cells (HSCs), resulting in stable gene transfer and **expression**. Additionally, recently developed self-inactivating (SIN) LVs allow promoter-specific transgene **expression**. For many gene transfer applications, transduction of more than one gene is needed. We obtained inconsistent results in our attempts to coexpress two transgenes linked by an internal ribosomal entry site (IRES) element in a single bicistronic LV transcript. In more than six bicistronic LVs we constructed containing a gene of interest followed by an IRES and the GFP reporter gene, GFP fluorescence was undetectable in transduced cells. We therefore investigated how to achieve consistent and efficient coexpression of two transgenes by LVs. In a SIN LV containing the elongation factor 1α promoter, we included a second promoter from cytomegalovirus, the phosphoglycerate **kinase** gene, or the HLA-DRα gene. Using a single LV containing two constitutive promoters, we achieved strong and sustained **expression** of both transgenes in transduced engrafting CD34(+) HSCs and their progeny, as well as in other **human** cell types. Thus, such dual-promoter LVs can coexpress multiple transgenes efficiently in a single target cell and will enable many gene transfer applications.

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ACCESSION NUMBER: 2003387119 EMBASE
TITLE: Effect of C-terminal truncations on MLK7 catalytic activity and JNK activation.
AUTHOR: **Yu X.**; Bloem L.J.
CORPORATE SOURCE: L.J. Bloem, Cardiovascular Discovery Research, Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN 46285, United States. L.Bloem@lilly.com
SOURCE: Biochemical and Biophysical Research Communications, (17 Oct 2003) 310/2 (452-457).
Refs: 25
ISSN: 0006-291X CODEN: BBRCA
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Mixed lineage **kinase** 7 (MLK7) is a MAPKKK with enriched **expression** in heart and skeletal muscle that functions to activate JNK and p38. The MLKs have several conserved domains, including a leucine zipper that in other family members mediates oligomerization critical for catalytic activity and JNK activation. Nested C-terminal deletion mutants of MLK7 from 436 to 286 as well as a mutant lacking only the leucine zipper (delLZ) were generated to determine the role of these domains in catalytic activity and JNK activation. Specific activity of MLK7366 was 75% full length while 436, 322, and delLZ retained approximately 25% and 286, 4% of the full-length catalytic function, demonstrating that the leucine zipper, while not absolutely necessary for catalytic activity, is required to reach full catalytic function of the enzyme. Co-transfection studies of JNK with the MLK7 mutants demonstrated full JNK activation with MLK7, 436, and delLZ, marginal activation for 1-400 or 1-366, and no activation for 1-322, demonstrating that the leucine zipper is not required for JNK activation and that sequence contained in C-terminal residue 322-436 is necessary for full pathway activation by MLK7.

L16 ANSWER 19 OF 43 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2003184252 EMBASE
TITLE: **Expression** of vascular endothelial growth factor

and its receptors in the rhesus monkey (Macaca mulatta) endometrium and placenta during early pregnancy.

AUTHOR: Wang H.; Li Q.; Lin H.; **Yu X.**; Qian D.; Dai J.; Duan E.; Zhu C.

CORPORATE SOURCE: C. Zhu, Stt. Key Lab. of Repro. Biology, Institute of Zoology, Chinese Academy of Sciences, 19, ZhongGuanCun Road, Beijing 100080, China. zhuc@panda.ioz.ac.cn

SOURCE: Molecular Reproduction and Development, (1 Jun 2003) 65/2 (123-131).
Refs: 39
ISSN: 1040-452X CODEN: MREDEE

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 010 Obstetrics and Gynecology

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Vascular endothelial growth factor (VEGF) is fundamental for development and maintenance of endometrial and placental vascular function during pregnancy. While there are a number of studies on VEGF in the **human** placenta, they are mostly restricted to late pregnancy. To further understand the role of VEGF in mediating angiogenesis during **human** early pregnancy, we employed a rhesus monkey early pregnancy model to study the temporal and spatial **expression** of VEGF and its receptors, fms-like tyrosine **kinase** (Flt)-1, and **kinase**-insert domain-containing receptor (KDR) mRNAs and proteins in the uteri on day 12, 18, and 26 of pregnancy using in situ hybridization, RT-PCR, and immunohistochemistry. VEGF mRNA had been identified in the luminal epithelium on day 12, in the glandular epithelium on day 12 and 18, and the highest **expression** was detected in the walls of some spiral arterioles adjacent to the implantation site on day 18, in the placental villi and in the fetal-maternal border on day 18 and 26. Besides, immunostaining of VEGF was detected in the placental villi and endometrial compartments including spiral arteries walls and the glandular epithelium. The localization of VEGF in the endothelium correlates with the presence of Flt-1 and KDR receptors on vascular structure. All the results above suggest that VEGF-VEGFR pairs were involved in the process of trophoblast invasion, maternal vascular transformation, and fetoplacental vascular differentiation and development during the rhesus monkey early pregnancy. **Expression** of VEGF, Flt-1, and KDR in the epithelial cells also hints some additionally functional roles of VEGF during early pregnancy.

L16 ANSWER 20 OF 43 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:358389 BIOSIS

DOCUMENT NUMBER: PREV200300358389

TITLE: Camptothecin-induced apoptosis of SH-SY5Y neuroblastoma cells.

AUTHOR(S): **Yu, X.** [Reprint Author]; Caltagarone, J.; Bowser, R.

CORPORATE SOURCE: Department of Pathology, University of Pittsburgh Medical Center, 3500 Terrace St., BST-S, Pittsburgh, PA, 15261, USA xiy1@imap.pitt.edu; caltagar@up.awing.upmc.edu; bowser@np.awing.upmc.edu

SOURCE: FASEB Journal, (March 2003) Vol. 17, No. 4-5, pp. Abstract No. 412.19. http://www.fasebj.org/. e-file.
Meeting Info.: FASEB Meeting on Experimental Biology: Translating the Genome. San Diego, CA, USA. April 11-15, 2003. FASEB.
ISSN: 0892-6638 (ISSN print).

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English
ENTRY DATE: Entered STN: 6 Aug 2003
Last Updated on STN: 6 Aug 2003

AB Activation of the p53-induced DNA damage response mediates either apoptosis or G1 cell cycle arrest. DNA-damaging agent camptothecin activates signaling pathways that normally control cell cycle, and activation of the cell cycle proteins plays a key role in apoptosis versus cell cycle arrest. p53 regulates a cell cycle checkpoint via induction of the cyclin-CDK inhibitor p21, which is the key regulator in cell growth/cell response to DNA damage and the hallmark of G1 cell cycle arrest. We report that after DNA-damaging agent camptothecin was applied, p53 protein levels increased within 8 hrs in retinoid acid differentiated SH-SY5Y neuroblastoma cells and the Bax protein was rapidly cleaved as detected by western blot. Immunocytochemistry for Bax after treatment showed altered subcellular distribution, and this immunoreactivity co-localized with that of p53. The increased **expression** of p53 in the cells induced rapid but brief elevation of p21 and gradual down-regualtion of CDK4 protein levels. The cell apoptotic activities were verified by Hoechst dye staining and by activation of Caspase-3 using western blot. Interestingly, the CDK4/6 inhibitor olomucine protected cells from camptothecin-mediated apoptosis. Our studies suggest that p21 may serve as a critical checkpoint regulator for both apoptosis and cell cycle arrest in the p53-induced DNA damage pathway. Hence, camptothecin may induce cell death via activation of cell cycle proteins or DNA damage/repair pathways.

L16 ANSWER 21 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 9
ACCESSION NUMBER: 2003-08154 BIOTECHDS
TITLE: New **human kinase** proteins and polynucleotides, useful for cosmetic and nutriceutical applications, drug screening, clinical trial monitoring, diagnosing or treating diseases associated with biological disorders or imbalances;
vector-mediated gene transfer and **expression** in host cell for **recombinant** protein production and gene therapy
AUTHOR: **YU X; XIE Q; ABUIN A; WALKE D W**
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: WO 2002090517 14 Nov 2002
APPLICATION INFO: WO 2002-US14669 8 May 2002
PRIORITY INFO: US 2001-289727 9 May 2001; US 2001-289727 9 May 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-103514 [09]

AB DERWENT ABSTRACT:
NOVELTY - A substantially isolated protein having the **kinase** activity of a protein comprising a fully defined sequence of 479 (S2) or 94 (S4) amino acids given in the specification, is new. The protein is encoded by a nucleotide sequence that hybridizes to a sequence of 1440 (S1) or 285 (S3) base pairs (bp) fully defined in the specification, under highly stringent conditions.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an isolated nucleic acid molecule comprising: (a) the sequence of S1 or S3; (b) a nucleotide sequence that encodes the amino acid sequence of S2, and hybridizes under stringent conditions to the nucleotide sequence of S1 or its complement; or (c) a nucleotide sequence encoding the amino acid sequence of S2 or S4.

WIDER DISCLOSURE - Also disclosed are host cell **expression** systems, fusion proteins, polypeptides and peptides, antibodies to the encoded proteins and peptides, genetically engineered animals that either lack or over **express** the polynucleotides, agonists and

antagonists of the proteins, and other compounds that modulate the **expression** or activity of the proteins encoded by the polynucleotides.

ACTIVITY - None given.

MECHANISM OF ACTION - **Kinase** Inhibitor; **Kinase** Stimulator; Gene Therapy.

USE - The polynucleotides, proteins, antibodies, agonists and antagonists of the proteins are useful for drug screening, clinical trial monitoring, and diagnosing or treating diseases or disorders associated with biological disorders or imbalances. The proteins and polynucleotides are also useful in cosmetic and nutriceutical applications, for identifying protein coding sequences and mapping a unique gene to a particular chromosome. The sequence of the polynucleotides and proteins can also be used as additional DNA markers for restriction fragment length polymorphism analysis, or in forensic biology.

EXAMPLE - No example given. (40 pages)

L16 ANSWER 22 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 10

ACCESSION NUMBER: 2002-19616 BIOTECHDS

TITLE: Novel nucleic acid molecule encoding a **human kinase**, useful in therapeutic, diagnostic and pharmacogenomic applications, as DNA markers for restriction fragment length polymorphism analysis and in forensic biology ; **recombinant** enzyme protein and agonist and antagonist use in disease therapy and gene therapy

AUTHOR: **WALKE D W**; MARICAR M; **YU X**; FRIDDLE C J

PATENT ASSIGNEE: LEXICON GENETICS INC

PATENT INFO: WO 2002046428 13 Jun 2002

APPLICATION INFO: WO 2000-US48533 7 Dec 2000

PRIORITY INFO: US 2000-251941 7 Dec 2000

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 2002-527921 [56]

AB DERWENT ABSTRACT:

NOVELTY - An isolated nucleic acid molecule (I) comprising a nucleotide sequence encoding a sequence (S1) of 424 amino acids fully defined in the specification, and hybridizes under stringent conditions to a sequence (S2) of 1275 nucleotides fully defined in the specification, or its complement, is new.

WIDER DISCLOSURE - Also disclosed are: (1) a host cell **expression** system **expressing** (I); (2) a protein encoded by (I); (3) a fusion protein comprising the protein encoded by (I); (4) antibodies or anti-idiotypic antibodies to the protein encoded by (I); (5) a genetically engineered animal that either lacks or overexpresses (I); (6) antagonists or agonists of the protein encoded by (I); (7) a compound that modulates the **expression** or activity of the protein encoded by (I); (8) a pharmaceutical formulation and method for treating biological disorders; (9) a protein that is functionally equivalent to the protein encoded by (I); and (10) a DNA vector that contains the **human kinase** coding sequences and/or their complements.

USE - (I) is useful in therapeutic, diagnostic and pharmacogenomic applications, and for identifying compounds that modulate, i.e., act as agonists or antagonists of the gene **expression** or gene product activity. (I) is useful for the identification of protein coding sequences, for mapping a unique gene to a particular chromosome, as additional DNA markers for restriction fragment length polymorphism (RFLP) analysis and in forensic biology, for screening libraries, isolating **clones**, preparing, **cloning** and sequencing templates, as hybridization probes, in microarrays or other assay formats, to screen collections of genetic material from patients who have

a particular medical condition, to identify mutations associated with a particular disease and also as a diagnostic or prognostic assay. (I) is useful for the detection of mutant **human** proteins, or inappropriately **expressed** proteins for the diagnosis of disease, for screening for drugs effective in the treatment of the symptomatic or phenotypic manifestations of perturbing the normal function of the protein in the body, for generation of antibodies, for identification of other cellular gene products related to the protein, and as reagents in assays for screening for compounds that can be used as pharmaceutical agents in the therapeutic treatment of mental, biological or medical disorders and diseases.

EXAMPLE - None given. (37 pages)

L16 ANSWER 23 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-06803 BIOTECHDS
TITLE: Novel **human** proteins that shares structural similarity with animal **kinases**, useful for therapeutic, diagnostic and pharmacogenomic applications; **recombinant** enzyme protein production and sense and antisense sequence for use in gene therapy
AUTHOR: **YU X**; MIRANDA M; FRIDDLE C J
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: WO 2002081671 17 Oct 2002
APPLICATION INFO: WO 2002-US10787 4 Apr 2002
PRIORITY INFO: US 2001-282031 6 Apr 2001; US 2001-282031 6 Apr 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-058539 [05]
AB DERWENT ABSTRACT:

NOVELTY - An isolated novel **human** protein (NHP) (I) having the **kinase** activity of a protein (Ia) comprising a 385 residue amino acid sequence (S1), given in the specification, and encoded by a nucleotide sequence that hybridizes to a 1158 nucleotide sequence (S2), given in the specification under highly stringent conditions, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an isolated nucleic acid molecule (II) comprising S2 or its complement, and encoding S1.

WIDER DISCLOSURE - (1) agonists and antagonists of NHP, or other compounds that modulate the **expression** or activity of the protein; (2) host cell **expression** systems comprising (II); (3) fusion proteins comprising (I) that direct NHP to a target organ and/or facilitate transport across the membrane into the cytosol; (4) antibodies or anti-idiotypic antibodies specific to (I); (5) genetically engineered animals that either lack or overexpress (I); (6) antisense or ribozyme molecules, and open reading frames of regulatory sequence replacement constructs; (7) process for identifying compounds that modulate i.e. act as agonists or antagonists of NHP **expression** and/or NHP activity that use purified preparations of the NHP and/or NHP products, or cells **expressing** the above; and (8) proteins that are functionally equivalent to the NHP products encoded by (II).

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - (I) and (II) are useful for diagnosis, drug screening, clinical trial monitoring, the treatment of diseases and disorders, and cosmetic or nutriceutical applications. (II) is useful for the identification of protein coding sequences, and mapping a unique gene to a particular chromosome. (II) is also useful as an additional DNA marker for restriction fragment length polymorphism (RFLP) analysis and in forensic biology. (II) is useful in conjunction with the polymerase chain reaction (PCR) to screen libraries, to isolate **clones** and to prepare **cloning** and sequencing templates. (I) or (II) are useful for the detection of mutant NHPs or inappropriately **expressed** NHPs for the diagnosis of disease, and for screening

for drugs effective in the treatment of the symptomatic or phenotypic manifestations of perturbing the normal function of NHP in the body. NHP products are useful as therapeutics. NHP products are also useful for the generation of antibodies, as reagents in diagnostic assays, for the identification of other cellular gene products related to NHP, and as reagents in assays for screening compounds that can be used as pharmaceutical reagents useful in the therapeutic treatment of mental, biological or medical disorders and diseases.

EXAMPLE - None given. (39 pages)

L16 ANSWER 24 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-05423 BIOTECHDS
TITLE: New **human kinase** polynucleotides, useful for diagnosis, drug screening, clinical trial monitoring, treating mental, biological or medical disorders and diseases, and for cosmetic or nutriceutical applications; vector-mediated **recombinant** protein gene transfer and **expression** in host cell for use in drug screening, gene therapy and forensics
AUTHOR: **YU X**; MIRANDA M
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: WO 2002074932 26 Sep 2002
APPLICATION INFO: WO 2002-US8959 20 Mar 2002
PRIORITY INFO: US 2001-277168 20 Mar 2001; US 2001-277168 20 Mar 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-759892 [82]
AB DERWENT ABSTRACT:

NOVELTY - A new isolated nucleic acid molecule comprises: (a) a sequence of 1368 base pairs fully defined in the specification; (b) a nucleotide sequence encoding a fully defined sequence of 455 amino acids given in the specification; or (c) a sequence that hybridizes under stringent conditions to the sequence of (a) or its complement.

WIDER DISCLOSURE - Also disclosed are: (1) agonists and antagonists of the polypeptides encoded by the polynucleotides; (2) transgenic animals that **express** the polypeptides which are useful for the in vivo study, testing and validation of **human** drug targets; (3) host cells **expressing** the nucleotides; (4) DNA vectors comprising the polynucleotides; and (5) antibodies that specifically recognize one or more epitopes of the polypeptides.

BIOTECHNOLOGY - Preparation: The polynucleotides can be synthesized by standard methods, such as the use of an automated DNA synthesizer.

ACTIVITY - Neuroleptic.

MECHANISM OF ACTION - **Kinase** Inhibitor; **Kinase** Stimulator; Gene Therapy.

USE - The **human kinase** polynucleotides are useful for diagnosis, drug screening, clinical trial monitoring, treating diseases and disorders, and cosmetic or nutriceutical applications. They are also useful as additional DNA markers for restriction fragment length polymorphism analysis and in forensic biology. The polynucleotides can also be used for generating antibodies, as reagents in diagnostic assays, or as reagents in assays for screening for compounds that can be used as pharmaceutical reagents useful in the therapeutic treatment of mental, biological or medical disorders and diseases.

ADMINISTRATION - No administration routes or dosage details given.

EXAMPLE - No example given. (37 pages)

L16 ANSWER 25 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-01894 BIOTECHDS
TITLE: Novel polynucleotide encoding **human** proteins that are structurally similar to animal **kinases**, useful for drug screening, diagnosis, in gene therapy of disorders and diseases e.g. cancer and pharmacogenomic applications;

recombinant enzyme protein production and sense and antisense sequence use in disease therapy and gene therapy

AUTHOR: **YU X**; MIRANDA M; FRIDDLE C J
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: WO 2002059325 1 Aug 2002
APPLICATION INFO: WO 2001-US50497 20 Dec 2001
PRIORITY INFO: US 2000-258335 27 Dec 2000; US 2000-258335 27 Dec 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-599796 [64]

AB DERWENT ABSTRACT:

NOVELTY - An isolated nucleic acid molecule (I) comprising a nucleotide sequence encoding a novel **human** protein (NHP) of 2054 (S1) or 1958 (S2) amino acids given in specification, that share structural similarity with animal **kinases**, including serine-threonine **kinases**, particularly Citron rho-interacting **kinases**, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) an isolated nucleic acid molecule (II) comprising a nucleotide sequence that encodes (S1) and hybridizes under stringent conditions to a sequence (S3) of 6165 base pairs given in the specification, or its complement; and (2) an isolated nucleic acid molecule (III) comprising at least 24 contiguous bases of (S3).

WIDER DISCLOSURE - Disclosed are: (1) novel **human** proteins (NHPs) encoded by (I), that share structural similarity with animal **kinases**; (2) host cell **expressing** systems comprising (I); (3) antibodies to NHP and anti-idiotypic antibodies; (4) fusion proteins comprising NHP; (5) genetically engineered animals that either lack or over **express** (I); (6) antagonists and agonists of NHP; (7) compounds that modulate the **expression** or activity NHP which can be used for diagnosis, drug screening, clinical trial monitoring, treatment of diseases and disorders, and cosmetic or nutriceutical applications; (8) identifying compounds that modulate, **expression** and/or activity of NHP; (9) degenerate nucleic acid variants of (I); (9) vectors that contain (I); (10) nucleotide sequences (e.g. antisense and ribozyme molecules) that inhibit **expression** of (I); and (11) proteins that are functionally equivalent to NHPs.

BIOTECHNOLOGY - Preferred Protein: NHPs are novel proteins **expressed** in **human** cell lines and **human** testis, small intestine, fetal kidney, adenocarcinoma, embryonic carcinoma cells and osteosarcoma cells.

ACTIVITY - Nootropic; Cytostatic.

MECHANISM OF ACTION - Gene therapy. No suitable data given.

USE - NHP oligonucleotides are useful as hybridization probes for screening libraries and assessing gene **expression** patterns. NHP sequences are useful to identify mutations associated with a particular disease and also as a diagnostic or prognostic assay, and also in the molecular mutagenesis/evolution of proteins that are at least partially encoded by the NHP sequences. Sequences derived from regions adjacent to the intron/exon boundaries of NHP gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NHP sequences are utilized in microarrays or other assay formats, to screen collections of genetic material from patients who have a particular medical condition. NHP nucleotide sequences are useful for drug screening effective in the treatment of symptomatic or phenotypic manifestations of perturbing the normal function of NHP in the body, and nucleotide constructs encoding NHP products are used to genetically engineer host cells to **express** NHP products in vivo. These genetically engineered cells function as bioreactors in the body delivering a continuous supply of a NHP, a NHP peptide, or a NHP fusion protein to the body. Nucleotide construct encoding NHP products are also useful in gene

therapy for modulating NHP **expression** and to produce genetically engineered host cells to **express** NHP products in vivo. NHP nucleotide sequences may also be used as part of ribozyme and/or triple helix sequences that are useful for NHP gene regulation. The encoded NHP polypeptides are useful for generating antibodies, as reagents in diagnostic assays, for identifying other cellular gene products related to NHP and as reagents in assays for screening for compounds that are useful in the treatment of mental, biological or medical disorders and diseases including cancer.(50 pages)

L16 ANSWER 26 OF 43 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2002303299 EMBASE
TITLE: IL-2 receptor blockade inhibits late, but not early, IFN-γ and CD40 ligand **expression** in **human** T cells: Disruption of both IL-12-dependent and -independent pathways of IFN-γ production.
AUTHOR: McDyer J.F.; Li Z.; John S.; **Yu X.**; Wu C.-Y.; Ragheb J.A.
CORPORATE SOURCE: Dr. J.A. Ragheb, Laboratory of Immunology, National Eye Institute, National Institutes of Health, 10 Center Drive, Bethesda, MD 20892-1857, United States. jr50b@nih.gov
SOURCE: Journal of Immunology, (1 Sep 2002) 169/5 (2736-2746). Refs: 64
ISSN: 0022-1767 CODEN: JOIMA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English

AB mAbs directed against the α-chain (Tac/CD25) of the IL-2R are an emerging therapy in both transplantation and autoimmune disease. However, the mechanisms underlying their therapeutic efficacy have not been fully elucidated. Therefore, we examined the affect of IL-2R blockade on Th1 and Th2 cytokine production from **human** PBMC. Addition of a humanized anti-Tac Ab (HAT) to activated PBMC cultures inhibited IFN-γ production from CD4 and CD8 T cells by 80-90%. HAT partially inhibited production of TNF-α and completely inhibited production of IL-4, IL-5, and IL-10. Furthermore, IL-12, a central regulatory cytokine that induces IFN-γ, was undetectable in treated cultures. As T cell-dependent induction of IL-12 is regulated via CD40/CD40 ligand (CD40L) interactions, we examined the affect of HAT on CD40L **expression**. We found CD40L **expression** to be biphasic with an early (6 h) peak that is CD28/IL-2-independent, but a later peak (48 h) being CD28/IL-2-dependent and inhibited by HAT. Similarly, IFN-γ production at 6 h was CD28/IL-2-independent but CD28/IL-2-dependent and inhibited by HAT at 48 h. Nonetheless, addition of rCD40L or exogenous IL-12 to HAT-treated cultures could not restore IFN-γ production. The IFN-γ deficit in such cultures appears to be due to a direct inhibition by HAT of IL-12-independent IFN-γ production from T cells rather than altered **expression** of either the IL-12Rβ1 or IL-12Rβ2 chains. These data demonstrate that IL-2 plays a critical role in the regulation of Th1 and Th2 responses and impacts both IL-12-dependent and -independent IFN-γ production.

L16 ANSWER 27 OF 43 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2002147002 EMBASE
TITLE: Modulation of p53, ErbB1, ErbB2, and Raf-1 **expression** in lung cancer cells by depsipeptide FR901228.
AUTHOR: **Yu X.**; Sheng Guo Z.; Marcu M.G.; Neckers L.; Nguyen D.M.; Chen G.A.; Schrump D.S.

CORPORATE SOURCE: Dr. D.S. Schrump, Thoracic Oncology Section, 10 Center Dr., Bethesda, MD 20892-1502, United States
SOURCE: Journal of the National Cancer Institute, (3 Apr 2002) 94/7 (504-513).
Refs: 52
ISSN: 0027-8874 CODEN: JNCIAM
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis
016 Cancer
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Background: Histone deacetylases (HDACs) modulate chromatin structure by regulating acetylation of core histone proteins. HDAC inhibitors, such as depsipeptide FR901228 (FK228), induce growth arrest and apoptosis in a variety of **human** cancer cells by mechanisms that cannot be attributed solely to histone acetylation. This study evaluated the mechanisms by which FK228 mediates apoptosis in non-small-cell lung cancer (NSCLC) cells. Methods: Proliferation and apoptosis were assessed in a panel of NSCLC cell lines that vary in the **expression** of the growth-regulating proteins p53, pRb, and K-Ras treated with a clinically relevant dose of FK228 (25 ng/mL). Western blot and immunoprecipitation techniques were used to analyze **expression** of cell-cycle proteins (cyclin A, cyclin E, p53, and p21), signaling-related proteins (ErbB1, ErbB2, and Raf-1), activity of extracellular signal-regulated **kinase** 1 and 2 (ERK1/2), binding of mutant p53 and Raf-1 to heat shock protein (Hsp)90, and acetylation of Hsp90. Results: FK228 treatment inhibited growth and induced apoptosis in NSCLC cells **expressing** wild-type or mutant p53. FK228 treatment led to altered **expression** of cyclin A, cyclin E, and p21, and to reduced **expression** of mutant, but not wild-type, p53. FK228-treated cells also were depleted of ErbB1, ErbB2, and Raf-1 proteins, and exhibited lower ERK1/2 activity. FK228 treatment also inhibited the binding of mutant p53 and Raf-1 to Hsp90; this inhibition was associated with acetylation of Hsp90. Conclusions: FK228 depletes the levels of several oncoproteins that are normally stabilized by binding to Hsp90 in cancer cells. The resulting ability of FK228 to diminish signal transduction via pathways involving Raf-1 and ERK may contribute to the potency and specificity of this novel antitumor agent.

L16 ANSWER 28 OF 43 EMBASE on STN
ACCESSION NUMBER: 2002286671 EMBASE
TITLE: Blimp-1 orchestrates plasma cell differentiation by extinguishing the mature B cell gene **expression** program.
AUTHOR: Shaffer A.L.; Lin K.-I.; Kuo T.C.; **Yu X.**; Hurt E.M.; Rosenwald A.; Giltnane J.M.; Yang L.; Zhao H.; Calame K.; Staudt L.M.
CORPORATE SOURCE: K. Calame, Department of Microbiology, Columbia Univ. Coll. of Phys./Surg., New York, NY 10032, United States. klc1@columbia.edu
SOURCE: Immunity, (2002) 17/1 (51-62).
Refs: 70
ISSN: 1074-7613 CODEN: IUNIEH
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
LANGUAGE: English

SUMMARY LANGUAGE: English

AB Blimp-1, a transcriptional repressor, drives the terminal differentiation of B cells to plasma cells. Using DNA microarrays, we found that introduction of Blimp-1 into B cells blocked **expression** of a remarkably large set of genes, while a much smaller number was induced. Blimp-1 initiated this cascade of gene **expression** changes by directly repressing genes encoding several transcription factors, including Spi-B and Id3, that regulate signaling by the B cell receptor. Blimp-1 also inhibited immunoglobulin class switching by blocking **expression** of AID, Ku70, Ku86, DNA-PKcs, and STAT6. These findings suggest that Blimp-1 promotes plasmacytic differentiation by extinguishing gene **expression** important for B cell receptor signaling, germinal center B cell function, and proliferation while allowing **expression** of important plasma cell genes such as XBP-1.

L16 ANSWER 29 OF 43 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:579538 BIOSIS
DOCUMENT NUMBER: PREV200200579538
TITLE: Development of glucose intolerance in male transgenic mice overexpressing GSK-3beta on a muscle specific promotor.
AUTHOR(S): Pearce, N. J. [Reprint author]; Arch, J. R. S. [Reprint author]; Morrison, A. D. [Reprint author]; **Abuin, A.** [Reprint author]; Coghlan, M. P. [Reprint author]; Corcoran, S. L. [Reprint author]; Harper, A. J. [Reprint author]; Lister, C. A. [Reprint author]; Llano, A. [Reprint author]; Murphy, G. J. [Reprint author]; Cox, L. Roxbee [Reprint author]; Smith, S. A. [Reprint author]; Taylor, C. M. [Reprint author]; Yates, J. W. [Reprint author]; Holder, J. C. [Reprint author]
CORPORATE SOURCE: GlaxoSmithKline, Harlow, UK
SOURCE: Diabetologia, (August, 2002) Vol. 45, No. Supplement 2, pp. A 70. print.
Meeting Info.: 38th Annual Meeting of the European Association for the Study of Diabetes (EASD). Budapest, Hungary. September 01-05, 2002. European Association for the Study of Diabetes.
CODEN: DBTGAJ. ISSN: 0012-186X.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Nov 2002
Last Updated on STN: 13 Nov 2002

L16 ANSWER 30 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 11

ACCESSION NUMBER: 2002-04068 BIOTECHDS
TITLE: New nucleic acid molecules encoding new **human** proteins, useful in diagnosis, drug screening, clinical trails monitoring, treatment of physiological disorders and cosmetic or nutriceutical applications;
vector-mediated **kinase** gene transfer and **expression** in host cell, antibody, DNA probe, DNA primer and transgenic animal for disease diagnosis and gene therapy
AUTHOR: Hu Y; Nepomnichy B; Wang X; Donoho G; Scoville J; **Walke D W**
PATENT ASSIGNEE: Lexicon-Genetics
LOCATION: The Woodlands, TX, USA.
PATENT INFO: WO 2001081557 1 Nov 2001
APPLICATION INFO: WO 2001-US13149 24 Apr 2001
PRIORITY INFO: US 2000-201227 1 May 2000; US 2000-199499 25 Apr 2000
DOCUMENT TYPE: Patent

LANGUAGE: English
OTHER SOURCE: WPI: 2002-034442 [04]
AB A nucleic acid (I) encoding a new **human kinase** (II) with a 1,545 or 1,224 bp DNA sequence fully defined encoding a 514, 407 or 396 amino acid protein sequence fully defined is claimed. Also disclosed as new are: vectors containing (I); host cell containing (I); fusion proteins containing (I); antibodies and anti-idiotype for (I); transgenic animals that lack or overexpress (I); agonist and antagonist of (I); and compounds that modulate the **expression** or activity of (I). (I) gene was isolated by polymerase chain reaction using DNA primers. (I) can be used for diagnosis, drug screening, clinical trail monitoring, physiological disorder therapy and cosmetic or nutriceutical applications. (I) can also be used for gene mapping and as a DNA probe for screening libraries and assessing gene **expression** profiles and for the detection of mutants for disease diagnosis. (I) is also useful in pharmacogenomics. (44pp)

L16 ANSWER 31 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 12
ACCESSION NUMBER: 2002-01107 BIOTECHDS
TITLE: New polynucleotides encoding **human** proteins that share sequence similarity with animals **kinases** e.g. G-protein coupled receptor **kinases**, useful for drug screening, diagnosis and in gene therapy of biological disorders;
involving vector-mediated gene transfer for **expression** in host cell, agonist, antagonist, antisense, ribozyme and antibody
AUTHOR: **Walke D W**; Wilganowski N L; Turner Jr C A
PATENT ASSIGNEE: Lexicon-Genetics
LOCATION: The Woodlands, TX, USA.
PATENT INFO: WO 2001068869 20 Sep 2001
APPLICATION INFO: WO 2001-US7500 8 Mar 2001
PRIORITY INFO: US 2000-188449 10 Mar 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2001-570872 [64]
AB An isolated nucleic acid molecule (I) comprising a nucleotide sequence encoding new **human** proteins (NHPs), in particular proteins that share sequence similarity with animal **kinases** including G-protein coupled receptor **kinases**, of 553 or 353 amino acids and that hybridizes under stringent conditions to a nucleotide sequence of 1,662 bp or its complement, is claimed. Also claimed is an isolated nucleic acid molecule comprising at least 24 contiguous bases of the sequence. NHP oligonucleotides are useful as hybridization probes for screening libraries and assessing gene **expression** patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NHP gene can be used to design DNA primers that can be used in prognostics, diagnostics and pharmacogenomics. The NHP nucleotide sequences are also useful in drug screening and the nucleotide construct encoding NHP products are useful in gene therapy for modulating NHP **expression**. NHP products can be used to genetically engineer host cells to **express** NHP products in vivo, these genetically engineered cells function as bioreactors in the body. NHP sequences are useful in gene **expression** and DNA microarrays. (34pp)

L16 ANSWER 32 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 13
ACCESSION NUMBER: 2001-15821 BIOTECHDS
TITLE: Isolated nucleic acids encoding novel **human** proteins useful for the treatment of disease and as probes for testing and detection;
recombinant kinase and encoding sense

and antisense DNA for use in therapy and gene therapy and drug screening

AUTHOR: **Walke D W**; Hu Y; Nepomnichy B; Turner Jr C A; Zambrowicz B

PATENT ASSIGNEE: Lexicon-Genetics

LOCATION: The Woodlands, TX, USA.

PATENT INFO: WO 2001061016 23 Aug 2001

APPLICATION INFO: WO 2001-US5356 15 Feb 2001

PRIORITY INFO: US 2000-184014 22 Feb 2000

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 2001-502793 [55]

AB Isolated nucleic acid molecules (NAMs) encoding new **human** proteins (**kinases**) are claimed. Also claimed are: a NAM (I) having at least 24 contiguous bases of a 3,108 bp sequence or that hybridizes to this sequence under stringent conditions or that encodes a 1,035 amino acid protein sequence (disclosed); NAM (II) comprising a sequence encoding a 1,214 amino acid protein; a NAM (III) having a sequence encoding a 1,007 amino acid protein sequence; a NAM (IV) comprising at least 24 contiguous bases of a 1,007 bp sequence or that hybridizes to it under stringent conditions or that encodes a 576 amino acid sequence; a NAM (V) having a sequence encoding a 560 amino acid sequence; and a NAM (VI) comprising a sequence encoding a 520 amino acid protein sequence. The proteins are mammal transporter proteins useful for therapy and as drug targets for drug discovery. Protein and DNA sequences are disclosed. (I) to (VI) can be used in sense or antisense gene therapy and as probes for diagnosis. Transgenic animals, fusion proteins, antibodies, agonists and antagonists are disclosed. (70pp)

L16 ANSWER 33 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 14

ACCESSION NUMBER: 2001-13012 BIOTECHDS

TITLE: Novel isolated **human** protease polynucleotide that shares structural similarity with animal **kinases** including calcium/calmodulin-dependent protein **kinases** and serine/threonine protein **kinases**, useful in therapeutics; for use in gene therapy

AUTHOR: Donoho G; Scoville J; Turner Jr C A; Friedrich G; Zambrowicz B; **Abuin A**; Sands A T

PATENT ASSIGNEE: Lexicon-Genetics

LOCATION: The Woodlands, TX, USA.

PATENT INFO: WO 2001042435 14 Jun 2001

APPLICATION INFO: WO 2000-US33362 8 Dec 2000

PRIORITY INFO: US 1999-169769 9 Dec 1999

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 2001-381688 [40]

AB An isolated **human** protein-**kinase** (EC-2.7.1.37) polynucleotide (NHP) (I) selected from a polynucleotide comprising at least 24 contiguous bases of a sequence (S) comprising 1,158 bp, a sequence that encodes a 385 0r 356 amino acid sequence, and a sequence that hybridizes under stringent conditions to S or its complement, is claimed. (I) is useful in therapeutic, diagnostic and pharmacogenomic applications. (I) is useful for the detection of mutant NHP, or inappropriately **expressed** NHPs for the diagnosis of a disease. (I) is useful for drug screening (or high throughput screening of combinatorial libraries) effective in the treatment of symptomatic or phenotypic manifestations of perturbing the normal function of NHP in the body. (I) is useful in conjunction with polymerase chain reaction to screen libraries, isolate **clones**, and prepare **cloning** and sequencing templates. (I) is useful as hybridization probe for screening libraries, and assessing gene **expression** patterns.

(31pp)

L16 ANSWER 34 OF 43 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 15
ACCESSION NUMBER: 2001-11030 BIOTECHDS
TITLE: Novel isolated **human kinase** polynucleotide useful for screening for drugs effective in treatment of symptomatic or phenotypic manifestations of perturbing normal function of **human kinase** protein in the body;
recombinant protein production via plasmid **expression** in host cell useful in gene therapy
AUTHOR: Mathur B; Turner Jr A C; **Abuin A**; Friedrich G; Zambrowicz B; Sands A T
PATENT ASSIGNEE: Lexicon-Genetics
LOCATION: The Woodlands, TX, USA.
PATENT INFO: WO 2001034783 17 May 2001
APPLICATION INFO: WO 2000-US30380 3 Nov 2000
PRIORITY INFO: US 1999-164289 8 Nov 1999
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2001-335921 [35]
AB An isolated **human kinase** polynucleotide (I) selected from a polynucleotide is claimed. (I) contains at least 24 contiguous bases of a sequence (S) containing 2,682 bp fully defined, a polynucleotide encoding a sequence containing 893 amino acid fully defined, and a polynucleotide that hybridizes under stringent conditions to (S), or its complement. Also disclosed are: a DNA vector; a **recombinant** host cell; degenerate DNA variants of (I); transgenic animals that either lack or over **express** (I); novel **human kinase** protein (NHP); (ant)agonists of (I), and other compounds that modulate that **expression** or activity of (I); a process for identifying (ant)agonists; and antibodies that recognize one or more epitopes of a NHP. (I) is useful for detection of mutant NHP, or inappropriately **expressed** NHPs for the diagnosis of disease. (I) is useful for screening for drugs effective in the treatment of symptomatic or phenotypic manifestations of perturbing the normal function of NHP in the body. (I) is useful in the molecular mutagenesis or evolution of proteins. (I) is useful in conjunction with polymerase chain reaction. (I) is useful as a hybridization probe. (34pp)

L16 ANSWER 35 OF 43 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:693529 HCAPLUS
DOCUMENT NUMBER: 135:268247
TITLE: Protein and cDNA sequences of novel **human** phospholipases homologs and uses thereof in diagnosis, therapy and drug screening
INVENTOR(S): Hu, Yi; Nepomnichy, Boris; Donoho, Gregory; Hilbun, Erin; Turner, C. Alexander, Jr.; **Abuin, Alejandro**; Friedrich, Glenn; Zambrowicz, Brian; Sands, Arthur T.
PATENT ASSIGNEE(S): Lexicon Genetics Incorporated, USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001068871	A2	20010920	WO 2001-US7994	20010313

WO 2001068871 A3 20020321
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
CA 2402936 AA 20010920 CA 2001-2402936 20010313
US 2002081595 A1 20020627 US 2001-804969 20010313
EP 1317551 A2 20030611 EP 2001-920329 20010313
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2004500107 T2 20040108 JP 2001-567355 20010313
PRIORITY APPLN. INFO.: US 2000-188885P P 20000313
US 2000-189693P P 20000315
WO 2001-US7994 W 20010313

AB This invention provides protein and cDNA sequences for newly identified **human** proteins, designated NHPs, which shares structural similarity with animal phospholipases, including phospholipases C δ-4. The NHPs are novel proteins that are **expressed** in, inter alia, **human** cell lines and **human** fetal and adult brain, cerebellum, spinal cord, thymus, spleen, testis, thyroid, adrenal gland, small intestine, colon, adipose, rectum, and placenta cells. In one embodiment, the invention relates to diagnostic assays for detecting diseases associated with inappropriate NHP activity or levels. Also disclosed are methods for utilizing NHP in drug screening assays and in therapy directed against diseases associated with inappropriate NHP activity or levels.

L16 ANSWER 36 OF 43 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:993521 SCISEARCH
THE GENUINE ARTICLE: 500ZX
TITLE: Relation of gene **expression** phenotype to immunoglobulin mutation genotype in B cell chronic lymphocytic leukemia
AUTHOR: Rosenwald A; Alizadeh A A; Widhopf G; Simon R; Davis R E; **Yu X**; Yang L M; Pickeral O K; Rassenti L Z; Powell J; Botstein D; Byrd J C; Grever M R; Cheson B D; Chiorazzi N; Wilson W H; Kipps T J; Brown P O; Staudt L M (Reprint)
CORPORATE SOURCE: NCI, Metab Branch, Ctr Canc Res, Bldg 10, Rm 4N114, Bethesda, MD 20892 USA (Reprint); NCI, Metab Branch, Ctr Canc Res, Bethesda, MD 20892 USA; Stanford Univ, Sch Med, Dept Biochem, Stanford, CA 94305 USA; Stanford Univ, Sch Med, Dept Genet, Stanford, CA 94305 USA; Stanford Univ, Sch Med, Howard Hughes Med Inst, Stanford, CA 94305 USA; Univ Calif San Diego, Dept Med, La Jolla, CA 92093 USA; NCI, Biometr Res Branch, Div Canc Treatment & Diag, NIH, Bethesda, MD 20892 USA; NIH, Bioinformat & Mol Anal Sect, CBEL, CIT, Bethesda, MD 20892 USA; Walter Reed Army Med Ctr, Dept Med, Washington, DC 20307 USA; Ohio State Univ, Dept Internal Med, Columbus, OH 43214 USA; NCI, CTEP, Div Canc Treatment & Diag, NIH, Bethesda, MD 20892 USA; N Shore Long Isl Jewish Res Inst, Manhasset, NY 11030 USA; NCI, Med Branch, Div Clin Sci, NIH, Bethesda, MD 20892 USA
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF EXPERIMENTAL MEDICINE, (3 DEC 2001) Vol. 194, No. 11, pp. 1639-1647.
Publisher: ROCKEFELLER UNIV PRESS, 1114 FIRST AVE, 4TH FL, NEW YORK, NY 10021 USA.

ISSN: 0022-1007.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 29
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The most common **human** leukemia is B cell chronic lymphocytic leukemia (CLL), a malignancy of mature B cells with a characteristic clinical presentation but a variable clinical course. The rearranged immunoglobulin (Ig) genes of CLL cells may be either germ-line in sequence or somatically mutated. Lack of Ig mutations defined a distinctly worse prognostic group of CLL patients raising the possibility that CLL comprises two distinct diseases. Using genomic-scale gene **expression** profiling, we show that CLL is characterized by a common gene **expression** "signature," irrespective of Ig mutational status, suggesting that CLL cases share a common mechanism of transformation and/or cell of origin. Nonetheless, the **expression** of hundreds of other genes correlated with the Ig mutational status, including many genes that are modulated in **expression** during mitogenic B cell receptor signaling. These genes were used to build a CLL subtype predictor that may help in the clinical classification of patients with this disease.

L16 ANSWER 37 OF 43 MEDLINE on STN
ACCESSION NUMBER: 2001464952 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11509132
TITLE: Overexpression of p27(KIP1) induced by Bak gene leads to the arrest in G(1) phase of HCC-9204 cell line.
AUTHOR: Li J; Wang W; **Yu X**; Yang X; Hou Y
CORPORATE SOURCE: Department of Pathology, Fourth Military Medical University, Xin 710033, China.
SOURCE: Zhonghua gan zang bing za zhi = Zhonghua ganzangbing zazhi = Chinese journal of hepatology, (2001 Jul) 9 Suppl 27-9. Journal code: 9710009. ISSN: 1007-3418.
PUB. COUNTRY: China
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Chinese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20010820
Last Updated on STN: 20020122
Entered Medline: 20011204

AB OBJECTIVE: To explore whether p27(KIP1) plays an important role in prolonging cell cycle in G(1) phase and leading to apoptosis of HCC-9204 cells. METHODS: A model of Bak-induced cell cycle arrest in G(1) phase and subsequent apoptosis was established. p27(KIP1) was obtained from the model and sequenced afterwards. A zinc inducible p27(KIP1) stable transfectant was constructed. The effects of inducible p27(KIP1) on cell growth and cell cycle arrest were examined in control pMD and pMD-KIP1 transfected HCC-9204 cells. Western blot was performed to evaluate the **expression** of p27(KIP1). RESULTS: The cell growth was reduced by 35% upon 48h of p27(KIP1) induction with zinc treatment as determined by trypan blue exclusion assay. p27(KIP1) caused cell cycle arrest at 24h after induction, with 40% increase in G(1) population. CONCLUSIONS: Bak may induce cell cycle arrest in G(1) phase through up-regulating **expression** of p27(KIP1). The inducible p27(KIP1)-**expressing** cells provide a model to assess p27(KIP1) function.

L16 ANSWER 38 OF 43 MEDLINE on STN
ACCESSION NUMBER: 2001106052 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10995753
TITLE: Erythropoietin stimulates proliferation and interferes with differentiation of myoblasts.
AUTHOR: Ogilvie M; **Yu X**; Nicolas-Metral V; Pulido S M;

Liu C; Ruegg U T; Noguchi C T
CORPORATE SOURCE: Laboratory of Chemical Biology, NIDDK, National Institutes of Health, Bethesda, Maryland 20892-1822, USA.
SOURCE: Journal of biological chemistry, (2000 Dec 15) 275 (50) 39754-61.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200102
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010208

AB Erythropoietin (Epo) is required for the production of mature red blood cells. The requirement for Epo and its receptor (EpoR) for normal heart development and the response of vascular endothelium and cells of neural origin to Epo provide evidence that the function of Epo as a growth factor or cytokine to protect cells from apoptosis extends beyond the hematopoietic lineage. We now report that the EpoR is **expressed** on myoblasts and can mediate a biological response of these cells to treatment with Epo. Primary murine satellite cells and myoblast C2C12 cells, both of which **express** endogenous EpoR, exhibit a proliferative response to Epo and a marked decrease in terminal differentiation to form myotubes. We also observed that Epo stimulation activates Jak2/Stat5 signal transduction and increases cytoplasmic calcium, which is dependent on tyrosine phosphorylation. In erythroid progenitor cells, Epo stimulates induction of transcription factor GATA-1 and EpoR; in C2C12 cells, GATA-3 and EpoR **expression** are induced. The decrease in differentiation of C2C12 cells is concomitant with an increase in Myf-5 and MyoD **expression** and inhibition of myogenin induction during differentiation, altering the pattern of **expression** of the MyoD family of transcription factors during muscle differentiation. These data suggest that, rather than acting in an instructive or specific mode for differentiation, Epo can stimulate proliferation of myoblasts to expand the progenitor population during differentiation and may have a potential role in muscle development or repair.

L16 ANSWER 39 OF 43 LIFESCI COPYRIGHT 2005 CSA on STN
ACCESSION NUMBER: 2000:72569 LIFESCI
TITLE: Activation of Osteocalcin Transcription Involves Interaction of Protein **Kinase** A- and Protein **Kinase** C-dependent Pathways
AUTHOR: Boguslawski, G.; HaLe, L.V.; **Yu, X.**; Miles, R.R.; Onyia, J.E.; Santerre, R.F.; Chandrasekhar, S.
CORPORATE SOURCE: Endocrine Division, Lilly Research Laboratories, Indianapolis, Indiana 46285; E-mail: Chandra@lilly.com
SOURCE: Journal of Biological Chemistry [J. Biol. Chem.], (20000100) vol. 275, no. 2, pp. 999-1006.
ISSN: 0021-9258.
DOCUMENT TYPE: Journal
FILE SEGMENT: T; N
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Osteocalcin is a major noncollagenous protein component of bone extracellular matrix, synthesized and secreted exclusively by osteoblastic cells in the late stage of maturation, and is considered indicator of osteoblast differentiation. Osteocalcin **expression** is modulated by parathyroid hormone (PTH) and a variety of other factors. The cAMP-dependent protein **kinase** pathway has been shown previously to have an essential role in PTH signaling and regulation of osteocalcin **expression**. To determine the extent to which other pathways may

also participate in osteocalcin **expression**, we used rat and **human** osteoblast-like cell lines to generate stably transfected **clones** in which the osteocalcin promoter was fused to a luciferase reporter gene. These **clones** were examined for their responsiveness to agents known to activate or interfere with protein **kinase** A (PKA)- and protein **kinase** C (PKC)-dependent pathways. We have found that forskolin, cAMP, and PTH, as well as insulin-like growth factor I (IGF-I) and basic fibroblast growth factor, all were effective in activating the osteocalcin promoter. Phorbol 12-myristate 13-acetate (PMA) was also a strong inducer of the promoter, indicating that PKC plays a role in **expression** of osteocalcin. In combination with PTH or forskolin, the effect of PMA was additive to synergistic. Calphostin C, a selective inhibitor of PKC, decreased the PMA-, PTH-, and IGF-I-induced luciferase activity in a dose-dependent manner; a PKA inhibitor, H-89, also blocked the induction by PTH and IGF-I but not by PMA. We conclude that regulation of osteocalcin transcription is mediated by both PKA-dependent and PKC-dependent mechanisms and that the respective **kinases** reside on a linear or convergent pathway.

L16 ANSWER 40 OF 43 MEDLINE on STN
ACCESSION NUMBER: 2001554582 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11601053
TITLE: Gene **expression** of beta-adrenoceptor signal transmitters in heart failure.
AUTHOR: **Yu X**; Lin S; Wang X
CORPORATE SOURCE: Guangdong Provincial Cardiovascular Institute, Guangzhou 510080.
SOURCE: Zhonghua yi xue za zhi, (1999 Apr) 79 (4) 264-7. Journal code: 7511141. ISSN: 0376-2491.
PUB. COUNTRY: China
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Chinese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20011017
Last Updated on STN: 20020122
Entered Medline: 20011205

AB OBJECTIVE: To investigate the alteration in steady-state levels of messenger RNA(mRNA) of beta-adrenoceptor signal transmitters in heart failure. METHODS: The reverse transcription polymerase chain reaction (RT-PCR) was used to assess gene **expression** in small quantity of circulatory lymphocytes. With selected oligonucleotide primers, we used quantitative RT-PCR to amplify mRNAs encoding beta 2-adrenergic receptor(beta 2-AR), adenylate cyclase (AC), beta 2-adrenergic receptor **kinase**(beta-ARK), and beta-arrestin and cAMP response element binding protein (CREB) in 16 healthy subjects and 30 heart-failing patients. RESULTS: The alteration of gene **expression** in heart failure appeared to be selective, the steady-state levels of mRNA increased significantly involving AC and the transcription factor, CREB; decreased significantly involving membrane receptor, beta 2-AR; unchanged significantly involving phosphorylating factors of beta-AR uncoupling, beta-ARK and beta-arrestin. CONCLUSION: The aberrant gene **expression** of beta-adrenergic receptor might play an important role in the pathogenesis of heart failure.

L16 ANSWER 41 OF 43 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:792357 SCISEARCH
THE GENUINE ARTICLE: 245HY
TITLE: A new Drosophila APC homologue associated with adhesive zones of epithelial cells
AUTHOR: **Yu X**; Waltzer L; Bienz M (Reprint)
CORPORATE SOURCE: MRC, MOL BIOL LAB, HILLS RD, CAMBRIDGE CB2 2QH, ENGLAND

(Reprint); MRC, MOL BIOL LAB, CAMBRIDGE CB2 2QH, ENGLAND
COUNTRY OF AUTHOR: ENGLAND
SOURCE: NATURE CELL BIOLOGY, (JUL 1999) Vol. 1, No. 3, pp. 144-151

Publisher: MACMILLAN MAGAZINES LTD, PORTERS SOUTH, 4 CRINAN ST, LONDON N1 9XW, ENGLAND.
ISSN: 1465-7392.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 55

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Adenomatous polyposis coil protein (APC) is an important tumour suppressor in the **human** colon epithelium. In a complex with glycogen synthase **kinase**-3 (GSK-3), APC binds to and destabilizes cytoplasmic ('free') beta-catenin. Here, using a yeast two-hybrid screen for proteins that bind to the Drosophila beta-catenin homologue, Armadillo, we identify a new Drosophila APC homologue, E-APC. E-APC also binds to Shaggy, the Drosophila GSK-3 homologue. Interference with E-APC function produces embryonic phenotypes like those of shaggy mutants. Interestingly, E-APC is concentrated in apicolateral adhesive zones of epithelial cells, along with Armadillo and E-cadherin, which are both integral components of the adherens junctions in these zones. Various mutant conditions that cause dissociation of E-APC from these zones also obliterate the segmental modulation of free Armadillo levels that is normally induced by Wingless signalling. We propose that the Armadillo-destabilizing protein complex, consisting of E-APC, Shaggy, and a third protein, Axin, is anchored in adhesive zones, and that Wingless signalling may inhibit the activity of this complex by causing dissociation of E-APC from these zones.

L16 ANSWER 42 OF 43 MEDLINE on STN DUPLICATE 16
ACCESSION NUMBER: 2000196206 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10447711
TITLE: Role of mitogen-activated protein **kinases** in activation-induced apoptosis of T cells.
AUTHOR: Zhu L; **Yu X**; Akatsuka Y; Cooper J A; Anasetti C
CORPORATE SOURCE: Human Immunogenetics Program, Division of Clinical Research, Fred Hutc hinson Cancer Research Center, Seattle, WA 98104, USA.
CONTRACT NUMBER: AI40680 (NIAID)
CA18029 (NCI)
CA18221 (NCI)
+
SOURCE: Immunology, (1999 May) 97 (1) 26-35.
Journal code: 0374672. ISSN: 0019-2805.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200004
ENTRY DATE: Entered STN: 20000413
Last Updated on STN: 20000413
Entered Medline: 20000404

AB A member of the mitogen-activated protein (MAP) **kinase** family, Jun N-terminal **kinase** (JNK), has been implicated in regulating apoptosis in various cell types. We have investigated the requirement for another type of MAP **kinase**, extracellular signal-regulated protein **kinase** (ERK) in activation-induced cell death (AICD) of T cells. AICD is the process by which recently activated T cells undergo apoptosis when restimulated through the T-cell antigen receptor. Here we show that both JNK and ERK are activated rapidly upon T-cell receptor (TCR) ligation prior to the onset of AICD. A chemical inhibitor of ERK

activation, PD 098059, inhibits ERK activation and apoptosis, while JNK activation is not inhibited. This suggests that JNK activation is not sufficient for apoptosis. TCR cross-linking induces **expression** of the apoptosis-inducing factor, Fas ligand (FasL), and its **expression** correlates with ERK activation. In addition, apoptosis induced by direct ligation of the Fas receptor by anti-Fas antibody is not associated with ERK activation and is not inhibited by PD 098059. These data suggest that ERK activation is an early event during T-cell apoptosis induced by antigen-receptor ligation, and is not involved in apoptosis per se but in the **expression** of FasL. MAP **kinase** family members may be similarly involved in inducing apoptosis signals in other cell types.

L16 ANSWER 43 OF 43 MEDLINE on STN DUPLICATE 17
ACCESSION NUMBER: 1998281583 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9620273
TITLE: The maize retinoblastoma protein homologue ZmRb-1 is regulated during leaf development and displays conserved interactions with G1/S regulators and plant cyclin D (CycD) proteins.
AUTHOR: Huntley R; Healy S; Freeman D; Lavender P; de Jager S; Greenwood J; Makker J; Walker E; Jackman M; **Xie Q** ; Bannister A J; Kouzarides T; Gutierrez C; Doonan J H; Murray J A
CORPORATE SOURCE: Institute of Biotechnology, University of Cambridge, UK.
SOURCE: Plant molecular biology, (1998 May) 37 (1) 155-69. Journal code: 9106343. ISSN: 0167-4412.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199806
ENTRY DATE: Entered STN: 19980708
Last Updated on STN: 19980708
Entered Medline: 19980625

AB Recent discoveries of plant retinoblastoma (Rb) protein homologues and D-type cyclins suggest that control of the onset of cell division in plants may have stronger parallels with mammalian G1/S controls than with yeasts. In mammals, the Rb protein interacts specifically with D-type cyclins and regulates cell proliferation by binding and inhibiting E2F transcription factors. However, the developmental role of Rb in plants and its potential interaction with cell cycle regulators is unknown. We show that the maize Rb homologue ZmRb-1 is temporally and spatially regulated during maize leaf development. ZmRb-1 is highly **expressed** in differentiating cells, but almost undetectable in proliferating cells. In vitro, both ZmRb-1 and **human** Rb bind all classes of plant D-type cyclins with the involvement of a conserved N-terminal Leu-x-Cys-x-Glu (LxCxE) Rb-interaction motif. This binding is strongly reduced by mutation of the conserved Cys-470 of ZmRb-1. ZmRb-1 binds **human** and Drosophila E2F, and inhibits transcriptional activation of **human** E2F. We also show that ZmRb-1 is a good in vitro substrate for all **human** G1/S protein **kinases**. The functional conservation of proteins that control the G1/S transition in mammals and plants points to the existence of plant E2F homologues. We conclude that evolution of Rb and cyclin D proteins occurred after separation of the fungi from the higher eukaryotic lineage, but preceded the divergence of plant and animal kingdoms.

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(FILE 'HOME' ENTERED AT 09:20:04 ON 29 MAR 2005)

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI' ENTERED AT 09:20:30 ON 29 MAR 2005

L1	1300316	S	KINASE?
L2	484232	S	HUMAN AND L1
L3	6994149	S	CLON? OR EXPRESS? OR RECOMBINANT
L4	241821	S	L2 AND L3
L5	6109328	S	CARCINOMA OR BRAIN OR PITUITARY OR KIDNEY
L6	2104477	S	TRACHEA OR LUNG OR SALIVARY OR PROSTATE
L7	637019	S	UMBILICAL (A)VEIN OR AORTA OR ESOPHAGUS OR TONGUE
L8	55574	S	L4 AND L5
L9	6103	S	L4 AND L7
		E	YU X/AU
L10	2286	S	E3
		E	XIE Q/AU
L11	709	S	E3
		E	ABUIN A/AU
L12	182	S	E3-E5
		E	WALKE D W/AU
L13	127	S	E3-E6
L14	3280	S	L10 OR L11 OR L12 OR L13
L15	117	S	L4 AND L14
L16	43	DUP	REM L15 (74 DUPLICATES REMOVED)

10/798773

	L #	Hits	Search Text
1	L1	1	"6734010".pn.
2	L2	58042	kinase$2
3	L3	473874	human
4	L4	18796	l2 same l3
5	L5	718962	clon$3 or express$3 or recombinant
6	L6	10919	l4 same l5
7	L7	143815	carcinoma or brain or oituitary or kidney
8	L8	49097	(umbilical adj cord) or salivary or prostate or trachea
9	L9	161325	l7 or l8
10	L10	2736	l6 same l9
11	L11	2335	human adj3 l2
12	L12	1229	l5 same l11
13	L13	305	l9 same l12
14	L14	47724	YU XIE ABUIN WALKE
15	L15	269	l11 and l14
16	L16	27	l13 and l14

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1	20050324	42	US 20050063981 A1	Isolated nucleic acid molecules encoding cancer associated antigens, the antigens per se, and uses thereof
2	20050317	16	US 20050059101 A1	Bivalent targeting of cell surfaces
3	20050317	16	US 20050059101 A1	Bivalent targeting of cell surfaces
4	20050303	232	US 20050048490 A1	Proteins associated with cell growth, differentiation, and death
5	20050217	81	US 20050037445 A1	Oncology drug innovation
6	20050210	38	US 20050032146 A1	Tssk4: a human testis specific serine/threonine kinase
7	20050203	90	US 20050026267 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
8	20050113	35	US 20050009090 A1	Isolated human casein kinase proteins, nucleic acid molecules encoding human casein kinase proteins, and uses thereof
9	20050113	24	US 20050009019 A1	Tau-opathy model
10	20050106	68	US 20050003446 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins and uses thereof
11	20041230	69	US 20040266679 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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12	20041216	90	US 20040253698 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
13	20041209	91	US 20040248168 A1	Novel brain-localized protein kinases homologous to homeodomain-interacting protein kinases
14	20041209	125	US 20040248157 A1	Novel polynucleotides encoding soluble polypeptides and methods using same
15	20041202	678	US 20040241653 A1	Methods for identifying marker genes for cancer
16	20041028	47	US 20040214278 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
17	20041014	43	US 20040203127 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
18	20041014	42	US 20040203104 A1	Mammalian sphingosine kinase type 2 isoforms, cloning, expression and methods of use thereof
19	20041007	39	US 20040197930 A1	Proteomic analysis of biological fluids
20	20040923	135	US 20040185485 A1	Gene markers useful for detecting skin damage in response to ultraviolet radiation
21	20040923	36	US 20040185460 A1	Novel mixed lineage kinase (7) (mlk7) polypeptide polynucleotides encoding the same and methods of use thereof

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22	20040909	85	US 20040175751 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
23	20040812	102	US 20040157297 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
24	20040805	53	US 20040152123 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
25	20040729	102	US 20040146924 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
26	20040722	89	US 20040142366 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
27	20040722	20	US 20040142095 A1	Nucleic acid arrays and method for detecting nucleic acids by using nucleic acid arrays
28	20040715	111	US 20040137499 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
29	20040708	72	US 20040132152 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
30	20040708	58	US 20040132053 A1	Sphingosine kinase enzyme
31	20040701	320	US 20040126861 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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32	20040701	23	US 20040126398 A1	Isolated nucleic acid molecules encoding cancer associated antigens, the antigens per se, and uses thereof
33	20040610	94	US 20040110221 A1	Methods for diagnosing RCC and other solid tumors
34	20040527	85	US 20040101885 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
35	20040527	56	US 20040101857 A1	Modulation of cytokine-inducible kinase expression
36	20040527	13	US 20040101478 A1	In vivo methods of determining activity of receptor-type kinase inhibitors
37	20040520	155	US 20040097555 A1	Concomitant drugs
38	20040520	66	US 20040097446 A1	Modulation of checkpoint kinase 1 expression
39	20040513	78	US 20040092469 A1	Androgen-regulated PMEPA1 gene and polypeptides
40	20040513	207	US 20040091993 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
41	20040506	63	US 20040086926 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
42	20040429	39	US 20040082051 A1	Regulation of human uridine kinase
43	20040415	275	US 20040071700 A1	Obesity linked genes

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44	20040408	53	US 20040067568 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
45	20040408	47	US 20040067522 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins and uses thereof
46	20040401	68	US 20040063142 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins and uses thereof
47	20040401	53	US 20040063130 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
48	20040325	82	US 20040058325 A1	Gene expression in biological conditions
49	20040318	144	US 20040053394 A1	Human kinases
50	20040318	38	US 20040053261 A1	Molecular markers
51	20040318	287	US 20040053245 A1	Novel nucleic acids and polypeptides
52	20040304	184	US 20040043466 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
53	20040226	9	US 20040038882 A1	Sgk2 and sgk3 used as diagnostic and therapeutic targets
54	20040226	152	US 20040038881 A1	Human kinases

55	20040226	52	US 20040038363 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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56	20040226	40	US 20040038362 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
57	20040226	138	US 20040038346 A1	Novel human protein kinases and uses therefor
58	20040226	259	US 20040038207 A1	Gene expression in bladder tumors
59	20040212	24	US 20040030112 A1	Human testis specific serine/threonine kinase 3
60	20040205	61	US 20040023306 A1	Methods for quantitative proteome analysis of glycoproteins
61	20040205	144	US 20040023242 A1	Human kinases
62	20040205	71	US 20040023231 A1	System for identifying and analyzing expression of are-containing genes
63	20040129	112	US 20040018185 A1	Human kinases
64	20040122	53	US 20040014659 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
65	20040122	74	US 20040014193 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
66	20040115	73	US 20040010136 A1	Composition for the detection of signaling pathway gene expression
67	20040115	45	US 20040009935 A1	Antisense modulation of p21-activated kinase 2 expression

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68	20040115	129	US 20040009568 A1	Catalytic domains of the human hepatocyte growth factor receptor tyrosine kinase, and materials and methods for identification of inhibitors thereof
69	20040108	64	US 20040005559 A1	Markers of neuronal differentiation and morphogenesis
70	20031225	50	US 20030235915 A1	Human-nucleic acid sequences from breast tumor tissue
71	20031218	111	US 20030232408 A1	ISOLATED HUMAN KINASE PROTEINS
72	20031218	168	US 20030232391 A1	Identification of kinase inhibitors
73	20031211	40	US 20030228674 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
74	20031211	122	US 20030228595 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
75	20031204	317	US 20030225527 A1	Crystals and structures of MST3
76	20031127	103	US 20030220224 A1	Novel polynucleotides encoding the human citron kinase polypeptide, BMSNKC_0020/0021
77	20031113	23	US 20030211563 A1	Human testis specific serine/threonine kinase 1 & 2
78	20031113	136	US 20030211093 A1	Human kinases

79	20031106	128	US 20030207311 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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80	20031106	148	US 20030207299 A1	Human kinases
81	20031009	43	US 20030191279 A1	Urea derivatives useful as anticancer agents
82	20031009	42	US 20030190640 A1	Genes expressed in prostate cancer
83	20030925	70	US 20030180786 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
84	20030918	102	US 20030175927 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
85	20030918	210	US 20030175791 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
86	20030911	55	US 20030170856 A1	Regulation of human map kinase phosphatase-like enzyme
87	20030911	61	US 20030170713 A1	Method of detecting androgen-regulated gene
88	20030904	36	US 20030166623 A1	Novel steroid hormone receptor interacting protein kinase
89	20030904	48	US 20030166221 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
90	20030904	43	US 20030166220 A1	CDNA, GENOMIC, AND PREDICTED PROTEIN SEQUENCES OF LEARNING-INDUCED KINASES

91	20030904	79	US 20030166219 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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92	20030904	42	US 20030166218 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
93	20030904	85	US 20030166215 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
94	20030904	50	US 20030165485 A1	Functional role and potential therapeutic use of Reelin, Gas6 and Protein S in relation to adult neural stem or progenitor cells
95	20030821	41	US 20030157679 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
96	20030807	30	US 20030148334 A1	Differentially-expressed genes and polypeptides in angiogenesis
97	20030724	61	US 20030140354 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
98	20030724	48	US 20030138952 A1	Antisense modulation of PCTAIRE protein kinase 1 expression
99	20030717	47	US 20030135033 A1	Compounds and methods for the identification and/ or validation of a target
100	20030717	53	US 20030134319 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
101	20030710	76	US 20030129704 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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102	20030710	90	US 20030129645 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
103	20030710	116	US 20030129606 A1	Cytokine-, stress-, and oncoprotein-activated human protein kinase kinases
104	20030626	156	US 20030119037 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
105	20030612	41	US 20030108871 A1	Genes expressed in treated human C3A liver cell cultures
106	20030605	54	US 20030104393 A1	Blood assessment of injury
107	20030508	63	US 20030087317 A1	Human NIM1 kinase
108	20030501	78	US 20030082511 A1	Identification of modulatory molecules using inducible promoters
109	20030424	39	US 20030077799 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
110	20030417	179	US 20030073888 A1	Screening methods used to identify compounds that modulate a response of a cell to ultraviolet radiation exposure
111	20030417	139	US 20030073144 A1	Compositions and methods for the therapy and diagnosis of pancreatic cancer
112	20030403	68	US 20030064475 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins and uses thereof

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113	20030320	90	US 20030054529 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
114	20030313	81	US 20030049795 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
115	20030313	47	US 20030049792 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins and uses thereof
116	20030306	202	US 20030044783 A1	Human genes and gene expression products
117	20030227	122	US 20030040089 A1	Protein-protein interactions in adipocyte cells
118	20030206	185	US 20030027307 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
119	20030206	21	US 20030027154 A1	Nucleic acid arrays and method for detecting nucleic acids by using nucleic acid arrays
120	20030130	89	US 20030022341 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
121	20030130	207	US 20030022340 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
122	20030130	40	US 20030022339 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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123	20030130	53	US 20030022337 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
124	20030130	41	US 20030022232 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
125	20030130	100	US 20030022229 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
126	20030102	35	US 20030003560 A1	Isolated human casein kinase proteins, nucleic acid molecules encoding human casein kinase proteins, and uses thereof
127	20021226	179	US 20020198362 A1	Compositions and methods for the detection, diagnosis and therapy of hematological malignancies
128	20021226	94	US 20020197602 A1	NUCLEIC ACID SEQUENCES AND PROTEINS ASSOCIATED WITH AGING
129	20021212	75	US 20020188106 A1	Novel tools for the diagnosis and treatment of Alzheimer's disease
130	20021128	69	US 20020177205 A1	Mammalian alpha-kinase proteins, nucleic acids and diagnostic and therapeutic uses thereof
131	20021114	53	US 20020168741 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
132	20021114	345	US 20020168711 A1	Nucleic acids, proteins, and antibodies

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133	20021107	12	US 20020165188 A1	Methods for inhibition of tumorigenic properties of melanoma cells
134	20021107	31	US 20020164672 A1	Regulation of JNK activity by modulation of the interaction between the endocytic protein endophilin and the germinal center kinase-like kinase
135	20021024	36	US 20020155541 A1	Method and system for providing real-time, in situ biomanufacturing process monitoring and control in response to IR spectroscopy
136	20021017	95	US 20020151020 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
137	20021003	52	US 20020142430 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
138	20021003	40	US 20020142427 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
139	20020926	31	US 20020137167 A1	ISOLATED HUMAN CASEIN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN CASEIN KINASE PROTEINS, AND USES THEREOF
140	20020919	89	US 20020132325 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

141	20020919	90	US 20020132324 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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142	20020919	184	US 20020132322 A1	ISOLATED HUMAN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES THEREOF
143	20020919	39	US 20020132296 A1	Human Ste20-like stress activated serine/threonine kinase
144	20020912	174	US 20020127683 A1	ISOLATED HUMAN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES THEREOF
145	20020905	63	US 20020123121 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
146	20020905	69	US 20020123120 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
147	20020829	53	US 20020119548 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
148	20020829	94	US 20020119544 A1	ISOLATED HUMAN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES THEREOF
149	20020822	17	US 20020115845 A1	Promoter
150	20020815	67	US 20020110889 A1	ISOLATED HUMAN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES THEREOF
151	20020815	49	US 20020110888 A1	ISOLATED HUMAN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES THEREOF

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152	20020801	34	US 20020103116 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
153	20020801	60	US 20020102691 A1	Cytokine-, stress-, and oncoprotein-activated human protein kinase kinases
154	20020718	69	US 20020094946 A1	ISOLATED HUMAN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES THEREOF
155	20020718	56	US 20020094560 A1	ISOLATED HUMAN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES THEREOF
156	20020711	128	US 20020090624 A1	Gene markers useful for detecting skin damage in response to ultraviolet radiation
157	20020704	63	US 20020086391 A1	ISOLATED HUMAN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES THEROF
158	20020627	320	US 20020082189 A1	ISOLATED HUMAN SERINE/THREONINE KINASE NUCLEIC ACID MOLECULES ENCODING HUMAN SERINE/THREONINE KINASE AND USES THEREOF
159	20020620	52	US 20020076783 A1	Plants and plants cells expressing histidine tagged intimin
160	20020620	188	US 20020076715 A1	Compositions and methods for ovarian cancer therapy and diagnosis
161	20020613	68	US 20020072491 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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162	20020606	91	US 20020069426 A1	Methyl-D-erythritol phosphate pathway genes
163	20020530	39	US 20020064851 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
164	20020509	78	US 20020055160 A1	ISOLATED HUMAN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES THEREOF
165	20020509	47	US 20020055097 A1	P53-INDUCED APOPTOSIS
166	20020411	24	US 20020042358 A1	Sphingosine kinase, cloning, expression and methods of use
167	20020411	41	US 20020042101 A1	Mammalian sphingosine kinase type 2 isoforms, cloning, expression and methods of use thereof
168	20020328	70	US 20020037538 A1	Compositions, kits, and methods for identification, assessment, prevention, and therapy of psoriasis
169	20020321	69	US 20020034803 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
170	20020321	138	US 20020034780 A1	Novel human protein kinases and uses therefor
171	20020228	40	US 20020025570 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
172	20020207	44	US 20020015987 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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173	20011220	44	US 20010053844 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
174	20011213	33	US 20010051360 A1	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
175	20050222	75	US 6858420 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
176	20050208	39	US 6852519 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
177	20050201	37	US 6849420 B2	Method for determining modulation of p110.delta. activity
178	20050111	92	US 6841717 B2	Methyl-D-erythritol phosphate pathway genes
179	20041228	60	US 6835562 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
180	20041214	22	US 6830916 B2	Sphingosine kinase, cloning, expression and methods of use
181	20041214	45	US 6830912 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins and uses thereof
182	20041214	39	US 6830911 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

183	20041123	179	US 6821765 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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184	20041102	65	US 6812014 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins and uses thereof
185	20041026	37	US 6808912 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
186	20041026	86	US 6808911 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
187	20041019	73	US 6806072 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
188	20041005	50	US 6800471 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
189	20041005	41	US 6800470 B2	Mammalian sphingosine kinase type 2 isoforms, cloning, expression and methods of use thereof
190	20041005	32	US 6800283 B2	Isolated human casein kinase proteins, nucleic acid molecules encoding human casein kinase proteins, and uses thereof
191	20040921	109	US 6794137 B2	Gene markers useful for detecting skin damage in response to ultraviolet radiation
192	20040824	87	US 6780626 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

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193	20040810	16	US 6774226 B1	Isolated nucleic acid molecules encoding cancer associated antigens, the antigens per se, and uses thereof
194	20040622	98	US 6753175 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
195	20040525	81	US 6740513 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
196	20040511	50	US 6733978 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
197	20040504	96	US 6730506 B2	Isolated human kinase proteins
198	20040504	60	US 6730480 B1	Sphingosine kinase enzyme
199	20040427	38	US 6727066 B2	Genes expressed in treated human C3A liver cell cultures
200	20040406	59	US 6716604 B2	Nucleic acid molecules encoding a subunit of a human calcium/calmodulin-dependent protein kinase
201	20040316	106	US 6706511 B2	Isolated human kinase proteins

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1	20050303	232	US 20050048490 A1	Proteins associated with cell growth, differentiation, and death
2	20050217	81	US 20050037445 A1	Oncology drug innovation
3	20041209	91	US 20040248168 A1	Novel brain-localized protein kinases homologous to homeodomain-interacting protein kinases
4	20040708	58	US 20040132053 A1	Sphingosine kinase enzyme
5	20040527	56	US 20040101857 A1	Modulation of cytokine-inducible kinase expression
6	20040513	78	US 20040092469 A1	Androgen-regulated PMEPA1 gene and polypeptides
7	20040318	144	US 20040053394 A1	Human kinases
8	20040226	152	US 20040038881 A1	Human kinases
9	20040205	144	US 20040023242 A1	Human kinases
10	20040129	112	US 20040018185 A1	Human kinases
11	20040115	45	US 20040009935 A1	Antisense modulation of p21-activated kinase 2 expression
12	20031127	103	US 20030220224 A1	Novel polynucleotides encoding the human citron kinase polypeptide, BMSNKC_0020/0021
13	20031113	136	US 20030211093 A1	Human kinases
14	20031106	148	US 20030207299 A1	Human kinases

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15	20030911	61	US 20030170713 A1	Method of detecting androgen-regulated gene
16	20030717	47	US 20030135033 A1	Compounds and methods for the identification and/ or validation of a target
17	20021226	179	US 20020198362 A1	Compositions and methods for the detection, diagnosis and therapy of hematological malignancies
18	20021114	345	US 20020168711 A1	Nucleic acids, proteins, and antibodies
19	20020509	47	US 20020055097 A1	P53-INDUCED APOPTOSIS
20	20041214	39	US 6830911 B2	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
21	20040504	60	US 6730480 B1	Sphingosine kinase enzyme
22	20031223	41	US 6667168 B1	PAK4, a novel gene encoding a serine/threonine kinase
23	20030520	58	US 6566130 B1	Androgen-regulated gene expressed in prostate tissue
24	20020813	49	US 6432640 B1	P53-induced apoptosis
25	20010807	27	US 6271210 B1	Antisense oligonucleotides for mitogen-activated protein kinases as therapy for cancer
26	20000321	84	US 6040149 A	Assay for identifying agents which act on the ceramide-activated protein kinase, kinase suppressor of ras, and methods of using said agents

	Issue Date	Pages	Document ID	Title
27	19991228	27	US 6007991 A	Antisense oligonucleotides for mitogen-activated protein kinases as therapy for cancer